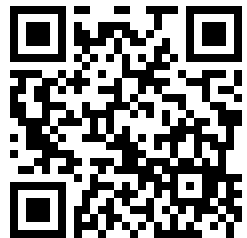

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THE CAVALRY JOURNAL

JANUARY 1908

THE SWISS CAVALRY

By LIEUT.-COLONEL C. DELMÉ-RADCLIFFE, C.M.G., M.V.O.

The rare occasions on which Cavalry have been used with effect in the country—The evolution of the present Cavalry system, and the distribution of the units—How they are mounted. The training—Repetition courses, and manœuvres—Officers and non-commissioned officers.

CAVALRY has never, in consequence of the nature of the country, had an opportunity of playing any great part in the past history of Switzerland.

At Morgarten the knights, confined in a narrow defile, succumbed to the attacks of shepherds. At Sempach the Austrian knights dismounted and formed that forest of lances into which Winkelried, sacrificing himself, forced an opening by gathering all the spears his arms could reach into his own breast. The Cavalry of Charles the Bold were scattered by the 'morning stars' of the men of the three original cantons: Uri, Schwitz, and Unterwalden.

On the other hand, during the religious wars of the seventeenth century, Bernese Dragoons successfully attacked the Catholic Infantry in the plains of Villmergen. And when in 1798 the French penetrated into Switzerland and the hitherto

unconquered Berne fell, the French Cavalry frequently attacked with effect.

It was only in the last quarter of the nineteenth century that a regular body of troops was formed out of the mass of mountain levies which, without any Military or Cavalry training, came into the field riding their rough cart and farm horses.

The change is due to the Cavalry Inspector of that date, Colonel Zehnder, who in 1874 introduced the present remount system. In 1884 Colonel Wille, now commanding the Second Army Corps, introduced his wonderful system of school and tactical training. This system has been carried on and developed by other capable Cavalry officers of the same school. The present 'Chief of the Arm' of Cavalry, or Inspector-General, is Colonel Wildbolz, to whom I am largely indebted for the details contained in this brief article. Colonel Wildbolz has a staff of five field and eight captains and subaltern professional officers, who superintend the whole instruction of the Cavalry.

The Swiss Cavalry is entirely a Militia Cavalry. Officers, non-commissioned officers, and troopers receive their first instruction in courses of limited duration.

The squadrons, regiments, and brigades formed assemble annually for short periods of exercises, called repetition courses. The mobilisation for these peace exercises is carried out, exactly as for war, at the various corps assembly stations, distributed over the whole country and provided with magazines, under exactly the same arrangements every time. There is no difference between a peace and a war strength.

STRENGTH AND DISTRIBUTION

The Swiss Cavalry at the present day consists of twenty-four Dragoon squadrons, formed into four brigades of two regiments of three squadrons each. Each brigade has one mounted Cavalry Maxim gun company (or squadron) with eight guns. The four brigades are allotted one to each Army Corps. Each of

the eight Infantry Divisions has one 'company' or squadron of Guides Cavalry as divisional Cavalry. Four Guides Cavalry 'companies' are allotted as Staff Cavalry to the Staffs of the Army and the Army Corps.

The Dragoon squadrons number 125 rank and file of nine yearly classes, to which, in addition, the recruit class can be counted. The Guides Cavalry 'companies' are somewhat stronger. Regimental transport per squadron consists of one four-horse waggon, carrying the field forge and field kitchen, and two two-horse supply and baggage waggons. The use of motor waggons for supplying the advanced troops from the advanced dépôts is under consideration.

ARMS AND EQUIPMENT

The weapons of the Cavalry are a light sabre with a steel sheath, and the 1905 pattern carbine with a six-cartridge magazine of the same bore as the Infantry rifle and sighted to 1,400 metres; ninety rounds of ammunition are carried in a bandolier. Both sabre and carbine are fixed on the saddle. All non-commissioned officers are supplied with field-glasses and all ranks with maps. The saddle is of the Danish pattern, with felt lining. The weight empty, with holsters, is $80\frac{1}{2}$ lbs.; the weight packed with one day's rations, feed, and weapons is 77 lbs. A change in the clothing is in contemplation. In place of the heavy Cavalry cloak a light waterproof poncho, which can be used as a rug, is to be introduced for the summer months. The weight of this poncho is to be $3\frac{3}{4}$ lbs.

The Maxim guns of the Maxim squadrons take the Infantry ammunition and are fired from tripod mountings. The guns and ammunition are carried on pack horses, the gun on the off side and the tripod on the near. Ammunition horses carry ammunition on both sides. The pack horses are led as hand horses by means of a leading staff. The Maxim squadrons follow the Cavalry at any pace across any country. The whole

of the eight guns of a squadron can be brought into action in about one minute. Each gun is followed by two ammunition pack horses carrying 4,000 rounds. Besides this the Maxim company, or squadron, has four light two-horse ammunition waggons carrying 65,000 rounds.

HORSES

As the class of horses bred in Switzerland provides extremely few remounts suited for Cavalry (only 2 per cent. of the number required) the Swiss Cavalry has drawn, since the year 1874, its remounts from abroad. About 1,000 horses are bought annually in Ireland and North Germany. The young horses are taken to the Cavalry Remount Dépôt at Berne, where there is room for 1,000 horses. They are acclimatised there for six to nine months, given plenty of oats to eat, and gradually trained to work in harness and under the saddle. After this the remounts, in batches of from 170 to 270, are put through the so-called remount courses of four months' duration, during which they are broken in by professional rough-riders under the superintendence of the instruction officers. At the end of the remount courses the remounts are handed over to the recruits joining for the recruits' courses. The recruits pay half the estimated value of the horses to Government as a guarantee for good treatment of the horses when they take them to their own homes. The troopers put in ten years of duty in the Auszug (field army), during which the guarantee money is returned to them in ten annual equal sums. The horse then becomes the private property of the man, whose out-of-pocket expense in the end is only the difference between the valuation price—the Government price—and the price for which the horse was sold to him at auction. All the horses are put up to auction to the recruits, commencing with the Government price.

Horses which become unserviceable or die before the end of their Auszug service are replaced. If there is any doubt as to

the man being in any way responsible for the unfitness or death of the horse, a Board is assembled, which decides whether the man or the State should bear the cost of replacing it.

The horses are occasionally inspected during the year at the men's own homes, and, on joining for the repetition courses, by the squadron officers and by the veterinary surgeon.

The horses are bought at three and a half years old, and cost the Government, including all expenditure on them, about £8 12s. per annum for each horse in the ranks.

The total number of horses in the country in the hands of the Cavalrymen is about 5,300, and there are usually about another 1,000 in the various dépôts and schools.

The 'Chief of the Arm' of Cavalry is responsible to the Chief of the Military Department and to the Federal Council for the whole training, horsing, and administration of the Cavalry.

TRAINING

The training of the Swiss Cavalry is one of the most remarkable achievements in the way of military training of the present day. It well merits exhaustive study. Unfortunately, the narrow limits of this article do not permit more than a very superficial glance at it.

The men accepted for the Cavalry are only those who make a special application to serve in the arm, and who can produce a certificate showing that they are in a position to maintain a horse at home, or that a third person, such as a parent or other relative, will undertake to do so for them. The majority of Cavalry recruits are farmers' sons, and they prove to be splendid material.

They pass first through a recruits' course of ninety days' duration. By the law in force up to 1907, the duration was eighty days, and this was divided into two periods of fifty days and thirty days. During the first period the instruction is entirely individual, including three hours' riding daily; during

the second period the training is in field exercises and squadron and regimental training. The authorities do not intend to increase the period of individual training, but will devote the whole of the increase of time now allotted to the recruits' courses to improving their instruction in the field. From the first to the last day of the recruits' course the men are kept tremendously hard at work. Not a minute in the day is allowed to be wasted. The scope of this article makes it impossible to give the details of the curriculum, but the results achieved are really quite astonishing. The men work with wonderful good will and keenness, and throughout the courses, as indeed at all times in the Swiss Army, the men are taught to regard their work as a patriotic duty to their country more than anything else. Such results could not be attained unless the men were of excellent quality in physique and spirit, and unless the instructing officers were first-class officers and also wonderfully painstaking and capable teachers as well.

MANŒUVRES

When watching the Swiss Cavalry at manœuvres it seems impossible to believe that such smart (in action not in dress sense), active, intelligent, well-disciplined, and well-mounted troops can really be manufactured in so absurdly short a time. But it must be remembered that a Swiss soldier is, so to speak, born a soldier. From the time he can toddle he begins with drill and gymnastics, and goes on to shooting and field exercises as a cadet or volunteer. All his life he is taught, in some form or another, discipline and duty. The annual manœuvres are merely the culminating point each year of his career as a soldier, in which he gives the proof of what he has learnt and is willing to do for his country. It would be quite a mistake to attempt to judge of his probable value as a soldier merely in proportion to the number of days he has actually spent in uniform.

On the completion of the recruits' courses the recruits, now

recruits no longer, but soldiers, are told off to the various units to which they will belong for the rest of their service. They leave the recruit school for their homes with their horses and completely equipped and armed.

For the next nine years the Cavalry soldier turns out every year for a thirteen days' training, called a 'repetition course,' with his squadron. The courses usually take place in the autumn, and are also, almost invariably, connected with some larger scheme of manœuvres in which a large force of all arms is employed.

After the soldier has passed the thirtieth year of his age he is transferred into the unmounted Landwehr.

When the units turn out for the repetition courses they are mobilised exactly as for war, and then march, or are conveyed by train, to their corps assembly stations, in some previously selected area, where the regiments and brigades are assembled, and immediately shaken into shape again by suitable exercises. On the second day, as a rule, exercises in brigade across country are resumed.

The repetition courses usually conclude with several days' combined manœuvres of all arms, with continuous outpost and reconnaissance work.

At the end of the repetition courses the troops march off to their assembly stations and are there demobilised, the men being dismissed to their homes.

OFFICERS AND N.C.O.s

The officers and non-commissioned officers are appointed in the following manner :

Such troopers as show themselves suitable for promotion during their recruits' or repetition courses are sent by their squadron commanders to the non-commissioned officers' courses, lasting forty-four days. Here they are prepared by officers for their duties as non-commissioned officers. After passing through this course the young non-commissioned

officers perform a tour of duty, as such, in a recruits' school. On the completion of the recruits' course the young N.C.O.s are allotted, as full corporals, to the various squadrons. Before each further step of promotion they have to prove their fitness by further tours of duty in the rank at other recruits' courses.

At the termination of the non-commissioned officers' school such men as appear, in consequence of their whole personality, education, breeding, manner, and capacity, to be likely to make good officers, are noted for being passed through an officers' school.

The first officers' school course has a duration of sixty days, and at the end of it the candidates who have shown themselves most suitable are promoted to the rank of officer. The young officers now are obliged to acquire the practical capacity for commanding a section by passing through another recruits' course, entrusted with the whole training of a troop of recruits, under the supervision only of the officers of the permanent corps of instructors. If they give proof of sufficient capacity in this course, the young officers are definitely allotted to their squadrons, and come out with them for the annual repetition courses.

Those officers that appear suitable for promotion after eight to ten years' service as troop commanders (there are three troops in a Swiss squadron) are called up for duty in a course at a non-commissioned officers' school, during which their work as instructors of a class of young non-commissioned officers is intended to enable them to qualify for the rank of squadron commander. They then pass through a recruits' course of ninety days as commander of a squadron of recruits. If their duty in this capacity is successfully performed, they are promoted to the rank of captain and squadron commander.

For promotion to field rank, and the command of regiments and brigades, specially capable officers are selected.

In order to improve their tactical training, young officers go through a thirteen days' course or tactical ride as leaders of



THE
SWISS
CAVALRY
—
DRAGOONS



THE SWISS CAVALRY

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AMMUNITION AND GUN HORSES

officers' patrols. Further, all Cavalry officers of the rank of captain and downwards go through, every second year, by Army Corps, another thirteen days' tactical course, under the superintendence of the 'Chief of the Arm,' or Inspector-General, of Cavalry. In addition to the above, officers of all ranks are called up to pass through courses of instruction for officers of all arms, called central schools, which have a duration of several weeks.

As the Swiss Cavalry authorities state: 'It is clear that out of such primitive elements a Cavalry force, fit for service, can only be created if everything is worked out with extreme care and arranged to suit the conditions (including the topographical ones) of the country.' There can be no two opinions of the great skill with which 'everything has been adapted to the conditions of the country.' One cannot help feeling, too, that almost the last word has been reached in the matter of skill and devotion to duty on the part of the small staff of permanent instructors, and in the matter of good will, keenness, and quality of the material on the part of all ranks. The 'fitness for service' has been attained because the men have been recruited from amongst the best elements of the population, and because the troopers, during the whole of their ten years' *Auszug* service, have their horses with them. For nine years running the men are assembled in the familiar framework of their squadrons, in which hardly any change but the arrival of a fresh class of young soldiers and the disappearance of an old one takes place each year. Each man falls into his familiar place and takes up his familiar duty, just like any other business which may fall to his lot during the course of the year. Thus in this body of Militia troops a permanence of habit is created which engenders and maintains a high standard of *esprit de corps*, a strong sense of duty, sound discipline, and confidence.

The quality of the corps of officers, natural suitability being presupposed, depends principally upon the proper selection of the individuals. It is increased by a course of teaching which omits

everything immaterial, is directed entirely on practical objects, and, above all things, calls into use a sound common sense sharpened by the active business occupations of everyday civil life.

As the repetition courses always take place in the field, with the troops cantoned as on active service, scope is given for the talent of organisation, eye for and judgment of the country, mutual understanding and co-operation, and an adaptability which never fails in unexpected and unusual situations, but always finds some method of extrication from an awkward situation.

The duties, training, and work are all laid down in the regulations for the service and training of the Swiss Cavalry of 1894 (corrected in 1904). These regulations are drawn up on original lines and on the principle of the most rudimentary simplicity in all forms, movements, and axioms. It is intended thus to minimise all error and misunderstanding and to avoid excessive charges on the memory.

The four Cavalry Brigades allotted to the four Army Corps, and each consisting of two regiments of three squadrons and one Maxim 'company' or squadron, are intended to work, supported by detachments of the field army or territorial troops, in advance of the army. Under these conditions the brigades can be united under one command into a Cavalry Division.

Owing to the nature of the country it is recognised that the Swiss Cavalry must often have recourse to fire action. The mountains and valleys make it inevitable that movements will take place in successive stages. The addition of the Maxim guns to the Cavalry Brigades is intended to enable them to employ great flexibility, power, and intensity in the fire action.

Latterly the system of advancing in small parallel columns, which admit of easily traversing difficult country and rapid deployment, has been preferred to linear formations. It is regarded as a first principle in the Swiss Cavalry to train all ranks to employ active initiative, as extreme freedom of action is indispensable

for manœuvre in Switzerland. Hence precise drill in units exceeding the squadron is considered to be actually mischievous.

Reconnaissance and outpost work is performed as in other armies. The numerous elevated points offer many facilities, while the difficulty of the country renders any systematic manœuvring impossible. In principle it is thought a mistake to send reconnoitring detachments too far out.

The employment of the Maxim gun 'companies' is usually on a broad front. The sections, of two guns each, work independently, under the supervision of the company commander. Great liberty of action is conceded to the section commanders, but in principle it is sought to attain overwhelming fire effect by surprise. The handling of the Maxim guns is very skilful, as the men have lots of practice with them. The annual allowance of ammunition for practice with ball is very liberal. The officers, rank and file of the Maxim companies are trained strictly as Cavalry with the Cavalry in the recruits' schools and in all the repetition courses.

The 'Guides' Cavalry 'companies,' or squadrons allotted to each Infantry Division, are not considered to represent actual battle troops. They are stronger than the normal Cavalry squadrons, but are only employed in reconnaissance and outpost work when the Army Corps Cavalry Brigades are withdrawn from the front of the army. Their usual duties are to act as reservoirs for the supply of patrols and orderlies for the divisional Staffs. Small detachments of Guides Cavalry ride at cannon-shot distance in advance of the Infantry columns, while advancing.

In a general sense the rôle of the Cavalry in Switzerland is considered to consist in helping their own troops out of critical situations, and in forming such for the enemy everywhere where less mobile troops are not available. The nature of the country favours a very mobile body of Cavalry, thoroughly familiar with the terrain, equipped with machine guns and well trained to fire action, in operations of which the important element is the constant surprising of the enemy.

***THE COMPARATIVE VALUE FOR WAR OF
REGULAR AND IRREGULAR TROOPS.***

By **LIEUTENANT H. B. C. ARTHUR, R.H.A.**

This essay, which was written during last winter, was one of those selected by the Chief of the General Staff for publication, both for its intrinsic merit and also on account of the interest of the subjects with which it deals. The opinions it contains must, however, be regarded as the individual opinions of the author.

‘Men may talk of patriotism. They may draw a few examples from ancient stories, but whoever builds on them as a sufficient basis for conducting a long and bloody war, will find himself deceived in the end.’ (WASHINGTON.)

BEFORE commencing a discussion on the value of regulars and irregulars it is necessary to make two preliminary observations; firstly, that the ideal regular and the ideal irregular approach very closely to the same standard. The regular starts with discipline and organisation, and travels in the direction of adaptation to new surroundings; the irregular starts more or less adapted to his surroundings, and travels in the direction of discipline and organisation. Considering both in the abstract, it is difficult to draw distinctions between them. On the other hand, comparing them as they are, it is difficult to avoid being unfair to one or the other, since the irregular owes much to the mere fact of conditions being unfavourable to the regular; secondly, that modern militia and volunteers cannot be classed either as regulars or irregulars. They cannot be called irregular because they have both organisation and discipline; nor regular because they have not continuous experience of organisation and discipline. They are therefore excluded from the main

argument, and will be considered separately in an appendix under the title of Auxiliaries.

Since the regular, by definition, is a soldier belonging to a permanent body of men armed for war, and organised in companies and regiments under proper officers, and the irregular, as such, has no qualifications, it is obvious that to compensate the latter for his initial lack of discipline and organisation, and to fit him to meet the regular, he must possess certain qualities and conditions not possessed by the regular. It is intended in the first place to state what these qualities and conditions are: secondly, to bring forward examples showing that where the irregular has been able to compete with the regular, his success has been due to these special qualities and special conditions; lastly, to take notice of changes that may arise from improvements in armament and in conditions of warfare.

The qualities and conditions that give irregulars their value are embodied in the following questions:—

- (i) Are these irregulars in some way especially adapted to the work before them? Can they shoot? Can they ride? Are they at any rate accustomed to hardship and danger? Are they stubborn by nature?
- (ii) Are they roused by religion, by patriotism, or other intoxicant to a high pitch of enthusiasm?
- (iii) Has the country that is to be the scene of operations any marked characteristics that will favour their method of fighting?
- (iv) Is sufficient time allowed them to develop that method of fighting?
- (v) Have they some degree of organisation?

It is by no means pretended that all these factors are invariably present wherever irregulars are successful. Sometimes one point is brought into prominence, sometimes another. But the list forms a scheme on which each example will be examined, and the sequel will show how far each factor is necessary.

The history of the British Army within the last 150 years furnishes two excellent illustrations of the comparative value of regulars and irregulars—the war of American Independence, and the war in South Africa. Besides these there are the Canadian War of 1812, and the war in Spain from 1808 onwards. These examples will be considered, and the questions enumerated above will be applied to each of them.

(i) The Americans of 1776 were by no means unfitted for the trial before them. Twenty thousand of them had seen service in the wars of the past decade. Constant skirmishing with Indians on the frontier had inured them to hardship of every kind. Scarcity of ammunition had produced a high standard of shooting. ‘The New England yeomen were accustomed to firearms from their childhood.’ In Massachusetts there was a law by which every man was bound to possess a musket, 1 lb. of powder, and 1 lb. of bullets. In Virginia the system of primogeniture provided a large number of younger sons without occupation, and ready to act as leaders in a national rising.

(ii) Religious and patriotic feeling were said to have been roused all over the country through the authorisation by England of Roman Catholicism in Canada, and through the establishment there of a more despotic form of government, which grated against the Republican religion and manners of the Americans. But though at the beginning of the war we hear of days of humiliation and prayer indicative of strong feeling, it is doubtful whether this feeling was shared by any but a very small class. Loyalists were as numerous as Republicans; and even among the Republicans the majority, like William the Silent, went to war without any intention of establishing their independence. They fought for a principle. ‘They adhered to the British Crown, though they had taken arms against British tyranny.’* As time went on enthusiasm died away considerably. ‘The halfheartedness of its supporters was the greatest danger to the American cause,’† and for a long time

* Lecky, chap. xi, p. 186 (ed. 1892)

† *Ibid.* chap. xi, p. 222

the war lacked that bitterness finally introduced by the Indian allies of the British, which roused the Americans to a supreme effort against the army of Burgoyne.

(iii) The character of the country, distances, and difficulties of transport were greatly in favour of the Rebellion. The British occupied in turn, and without very much difficulty, the most important towns throughout the country, but were unable to bring their opponents to a decisive battle; whilst their numerical weakness—about 30,000—made it impossible for them to hold what they had won.

(iv) The breathing time allowed to the Americans had considerable influence on the issue of the war. For months the inactivity of the British was almost incredible. Advantages were neglected, and nowhere was that energy shown which alone can compensate for inferiority of numbers.

(v) In spite of former experience the organisation of the Americans was contemptible. Each body of men was raised according to the laws of its own colony. They refused to serve under any officers but those of their own choice. They enlisted for short periods, at the end of which they left the colours wholesale. They formed 'a perpetually fluctuating army wholly destitute of discipline.'*

The American commissariat was corrupt and inefficient. Whilst the British Army was well supplied, the Americans were ragged and starving; and if 'the Battle of Bunker's Hill dispelled for ever the almost superstitious belief in the impossibility of encountering regular troops with hastily formed levies,'† the course of the war forms a striking example of the difficulty under which those levies keep the field.

Thus, whilst aided by their natural aptitude for war, the aptitude of the individual who can shoot straight and is accustomed to a rough life, aided too by the favourable nature of the country to their form of warfare, the Americans had neither the organisation nor the enthusiasm that would have made them

* Lecky, chap. xi, p. 211.

† *Ibid.* chap. xi, p. 204.

really formidable. They were saved by the extraordinary ineptitude of the British in the early part of the war, by the long delays that enabled them to reconstitute themselves again and again, by the smallness of the army opposed to them, and by the considerable support in men and money sent to them by the French.

If the War of Independence, where the irregular was on the defensive, showed the evils of irregular methods, in the Canadian War of 1812, where he was the aggressor, we find these evils increased tenfold. Local defence may succeed; local and spasmodic attack cannot succeed. A few British regiments, helped by the Canadian volunteers, were sufficient to repel the American invasion.

(i) Like the Americans of the War of Independence, but in a much higher degree, the Boers of 1899 were specially adapted to the struggle before them. From the Great Trek of 1837, their history had been one long series of wars—raids into Natal and the Orange Free State, raids against powerful native tribes on all sides, raids suffered in return, in which they saw destruction carried into their own country. In the defence their only protection lay in rifle fire, on which they depended to prevent their enemy from coming to close quarters. In the attack, whether against white men or black, their system was developed, and was marked by tactical mobility, good use of cover, and accurate shooting.* Their precarious existence during their early history produced a character easily adapted to circumstances. This was strikingly shown in the war by their readiness to grasp new conditions, by the abandonment, for instance, of the defence of hilltops, and by the invention of a shelter-trench that would protect them from artillery. As with the Americans, scarcity of ammunition produced marksmanship. Sparseness of population produced individuality, but also a strongly marked intolerance of

* Note, for instance, 'the device of galloping up to close range, pouring in a deadly fire, then galloping back to re-load and repeat the operation.'—*Times History*, vol. 2, p 58. Note also the skill shown in their attack on Majuba.

control, which in the sequel did much to ruin their cause; for though the burgher obstinacy contributed towards winning battles, it also contributed towards losing campaigns.

(ii) Much has been said of the 'Old Testament religiousness' of the Boers, but it is very doubtful whether religion proved a real motive power amongst them. Personal ambition amongst some, racial ambition amongst the majority, a great contempt for foreigners, and especially for the English, and that same impatience of exterior control, in which an admixture of self-interest formed a weakening element, are the principal causes of their undoubted enthusiasm for the war.

(iii) The nature of the country in South Africa is well known. Like its inhabitants, it had strongly marked characteristics, of which those inhabitants knew how to take full advantage. It afforded in many instances good cover and a good field of fire to the defenders; distances proved a great difficulty to the invaders, and the rarity of the atmosphere caused many mistakes in the calculation of distance. But the country cannot be said to have been exceptionally difficult, and was often favourable to the turning movements so successful under Lord Roberts.

(iv) The importance of the respite again and again given to the Boers can hardly be exaggerated. The threatened invasion of 1880, the Jameson raid of 1896, warned them that a struggle was inevitable. Guns and immense quantities of ammunition were imported. Grain and fodder were stored throughout the country. Scarcely less important was the respite between the outbreak of war and the landing of the first army corps. The reverses of Talana and Elands-laagte had been insufficient to discourage the Boers, sufficient to teach them to modify their dispositions; whilst the strategical success of Elands-laagte, and still more their victory at Nicholson's Nek, had improved their fighting spirit and brought many waverers to their ranks. To harden themselves to war, to replace inefficient leaders, to establish the blockades of Ladysmith and Kimberley, two whole

months were allowed them, a respite that bore fruit in the subsequent battles.

(v) The organisation of the Boers was by no means to be despised. It was a natural product, the banding together of a district, but it was systematised and enforced by law; and though it had broken down completely in 1876 in the Sikukuni War, it worked well if backed by strong popular enthusiasm.* In strategy, in spite of a certain vagueness of plan, a lack of objective in the movements of certain commandos, the Boer system worked well at the beginning of the war. Later, the impossibility of keeping commandos in the field was fatal to strategy; and decentralisation, though helpful to the particular expedition, was harmful to the general plan of the war, which degenerated into a series of raids.

In tactics again we find similar defects. In the original scheme, the occupation and defence of a position, the Boers were excellent. Their weakness lay in the feebleness or non-existence of the counter-attack. Thus at Stormberg the defeated British retired across their front; a vigorous counter-stroke would have converted that retreat into a rout. Yet the Boers contented themselves with shell fire at long range. This failure in the counter-attack is the greatest stumbling-block in the path of the irregular. It requires a trained staff, the 'coup d'œil' of a trained general, and a reserve ready to his hand. Where every Boer was his own general, counter-attack was impossible, especially when half these generals were at their farms.

In the supply of food and ammunition the Boers were excellent. In the art of handling an ox waggon they were past masters. Given a few hours' start, they boasted that their columns could outmarch Cavalry. This, coupled with their own mobility, was responsible for the success of their smaller undertakings, and rendered possible the adventures of De Wet in the later years of the war.

* This may be generalised. With all irregulars, organisation (v) depends largely on enthusiasm (ii).

The action of the Spanish in the Peninsular War was of three varieties—(a) the action of their armies in the field ; (b) that of troops and citizens combined in the defence of strongholds, and especially of Saragossa ; (c) guerilla warfare. Of these, the last may be dismissed with the remark that it was a thorn in the side of the French, that in conjunction with the British campaigns it was effective, but considered separately it had little military value.

The chief lesson of the war in Spain is that the boasted 'nation in arms,' that has no natural aptitude for war, no developed system of fighting, no organisation for regulating the efforts of its individuals, cannot, even if roused to the extreme pitch of enthusiasm, make a successful defence against a good regular army, though occasionally, as at Saragossa, local energy may produce glorious episodes. It is a lesson that should be taken to heart.

It has been the object of these examples to show that, to cope with regular troops, irregulars must be gifted with certain very definite qualities, and be favoured by certain peculiar conditions. The regular, it has been noted, starts with the assets of discipline, organisation, and artillery. To balance these, the irregular must have more than his share of advantages in another direction. These advantages were possessed in large measure by the Americans and by the Boers. They are not possessed by the modern armed population (such, for instance, as the franc-tireurs of 1870), which is therefore of little value in the defence of its country.

Turning once more to the list of these qualities and conditions, we find the following :—

- (i) A high standard of individual development, good shooting, good riding, physical and moral endurance, initiative.
- (ii) An outburst of religious or patriotic enthusiasm.
- (iii) A country whose distances or natural features are favourable to the action of irregulars.

- (iv) Time for preparation before the outbreak of war, and a respite after war has been declared.
- (v) A certain degree of organisation of however rough a kind, an ample supply of arms and ammunition, a definite system of fighting, including, if possible, a developed system of attack in force.

The value of these different factors has been constantly changing. Formerly, distances and the character of the country told far more heavily in favour of the irregular than they do to-day. In the war of American Independence, for example, the British were generally successful in their battles, and their failure was principally due to natural difficulties. To-day these difficulties have been largely removed by improvements in communications, and in South Africa were felt far less acutely. Our first formula therefore is:—IMPROVEMENTS IN COMMUNICATIONS ARE TO THE ADVANTAGE OF THE REGULAR.

On the other hand, the value of individual skill has increased with improvements in armament. It is a gain to the irregular to be able to inflict damage at a distance, where the discipline of the regular cannot assert itself. So the second formula is:—IMPROVEMENTS IN ARMAMENT ARE TO THE ADVANTAGE OF THE IRREGULAR.

Lastly, improvements in accessories which simplify the working of the fighting machine, which facilitate staff duties and reconnaissance—improvements in field glasses, telegraphs, telephones, heliographs, balloons—are obviously to the advantage of the regular. This gives a third formula:—IMPROVEMENTS IN ACCESSORIES ARE TO THE ADVANTAGE OF THE REGULAR. These changes, however, have but a limited effect on the relations between regulars and irregulars. They in no way destroy the value of discipline and organisation, and the irregular still has to show very exceptional qualities and conditions to turn the scale in his favour.

APPENDIX.

Auxiliaries compared with Regulars and Irregulars.

A hundred years ago the condition of the auxiliary was deplorable. In 1798 the militia was 'in a state of licentiousness, which must render it formidable to everyone but the enemy': and in that same year occurred the famous 'Race of Castlebar,' when 2,000 militia fled before 1,000 French who had landed at Killala, and who 'entirely occupied the attention of all the available troops of a garrison of Ireland 100,000 strong.'

The militia and volunteers in the South African War form a more pleasing picture. Many witnesses speak in their favour. Lord Roberts, though he found the 'greatest difference' between militia and the line regiments, allowed that the former improved considerably after a time; he said that the C.I.V.s 'did magnificently,' but were formed by spoiling other corps. Lord Methuen said that 'the Yeomanry (first contingent) bought their experience rather expensively at first,' but that he 'could place implicit reliance in them after a short time.' And of the Colonial troops Ian Hamilton said 'it would be impossible to over-estimate their value, if only their officers were trained.' The praise, then, is not unqualified, but at all events a gulf is fixed between the auxiliary of 1798 and the auxiliary of 1899.

Modern conditions tend to favour the auxiliary—

- (a) Improvements in the rifle favour him just as they were seen to favour the irregular, by keeping his enemy at a greater distance, and so preventing his discipline from being exposed to too great a strain.
- (b) Improvements in artillery and accessories cannot be said to favour him at present, but may do so in the future if special training in that direction is arranged.
- (c) The effect on the auxiliary of improvements in communications is to a certain extent doubtful. The Commission on the Militia and Volunteers report on

this point as follows: 'The opinion has been expressed . . . that troops acting on the defensive in Great Britain would derive from the enclosed nature of the country and from their knowledge of it an advantage compensating for a training less thorough than that of an invading force. But the balance of opinion and our own judgment is . . . that in the absence of highly specialised training in the use of enclosed and intricate country, the difficulties . . . tell in favour of those combatants who have the greater skill and are the more ably led.' From this it would follow that anything that simplifies conditions of warfare is favourable to the auxiliary, and that improvements in communications are to his advantage.

We have seen, then, that improvements in armaments are comparatively favourable to the irregular and the auxiliary at the expense of the regular; that improvements in accessories are favourable to the regular, may be favourable to the auxiliary, but are unfavourable to the irregular; that improvements in the conditions of the country are favourable to the regular and to the auxiliary at the expense of the irregular.

It has been shown by the South African War that auxiliaries can compare favourably with both regulars and irregulars. There are, however, two conditions on which their value depends. The first is a good supply of officers; the second is time.

In regard to the supply of officers the report of the Commission on the Militia and Volunteers is conclusive. 'The all-important question concerning the volunteer force is that of the qualification of its officers . . . Can or cannot the volunteer force be officered? If it cannot it is nothing more than a trivial military accessory.' Ian Hamilton says: 'Our experiences go to show that with well-trained officers and N.C.O.s, even comparatively untrained men can rapidly be made into good troops.' And Sir C. Grove: 'The reserve of officers fails to give

a supply of junior officers. Just at the time when the militia were being embodied and wanted officers the most, we were taking away some of its officers. We ought rather to help the militia by turning into them some good regular officers.' What auxiliaries require is rapid training. They are a kind of embryo regular; their discipline and organisation is potential. To develop into good soldiers they need continuous embodiment under good officers. This leads to the second point—that auxiliaries more than any other type of soldier require time. Two examples will show its importance. In the case of the American Civil War time was given. At the beginning of the war 'the Cavalry were left unorganised and undisciplined. One half was rarely available for discipline. The remainder was roaming over the country.' Yet these were the same troops who later under Stuart rode round the whole Federal Army. In the Franco-German War, on the other hand, the Gardes Mobiles and the Garde Nationale did not have time to become formidable. They were defeated, as a rule, by much smaller forces of the Germans, and their failure was largely due to the shortness of the time between their embodiment and their engagement in the field.

The value of auxiliaries therefore depends upon the satisfactory settlement of two questions—that of the supply of their officers, and that of time being given them for development before they are called upon to take the field.

*FATHERS OF THE INDIAN CAVALRY**GARDNER OF GARDNER'S HORSE*

By COLONEL H. W. PEARSE, D.S.O.

Contrast between Skinner and Gardner—the latter's parentage, education, and early service—The romance of his marriage—The raising of Gardner's Horse—The Gurkha Campaign—The Burmese War : loyalty of Gardner's Horse.

THE name of William Linnæus Gardner will always be linked with that of James Skinner in the history of the Indian Cavalry, yet, though both were exceptionally bold and skilful leaders of horse, it is difficult to imagine two more dissimilar men. Skinner was, as we have seen,* of short stature, dusky complexion, and homely appearance, equally ready to gain his end by hand or brain, by the dashing courage inherited from both sides of his mixed parentage, or by the subtle devices of Oriental warfare suggested by his early surroundings ; while Gardner, a strikingly tall and handsome man, the typical gentleman-adventurer, and highly educated, resembled Skinner only in that he was fearless and the very soul of honour and enterprise, and that he thereby gained the love and confidence of his Indian soldiers.

Gardner was born in the year 1770. His grandfather, the son of a Mr. Gardner of Coleraine, was Lieutenant-Colonel of the 11th Dragoons. The Colonel's son, Valentine Gardner, a Major in the 16th Regiment, married Alicia, daughter of Colonel Livingstone, of Livingstone Manor, New York, and their eldest son was William Linnæus Gardner, the subject of this narra-

* *Cavalry Journal*, Vol. II., No. 7, July 1907.

tive. Major Valentine Gardner's younger brother Alan earned distinction in the Royal Navy, and was raised to the Peerage as Lord Gardner.

William Gardner was educated in France, and, as was then usual, received an Ensign's commission at the age of thirteen, his first regiment being the 89th Foot. In 1789 he was an Ensign in the 74th Highlanders, but in October of that year was promoted Lieutenant in the 52nd. Gardner first smelt powder in France, for in December 1793 he took part in the expedition to Brittany under Major-General Lord Moira, a commander whom he was subsequently to serve in very different circumstances.

In 1794 Gardner became a Captain in the 30th Regiment, then stationed in India, and, exchanging at once to half pay, embarked on his remarkable career as an adventurer. This was the golden age of the free-lance in India, but the good time was not fated to last long. Gardner, eminently fitted for success, had no difficulty in obtaining employment with Tukaji Holkar, one of the great Mahratta tributary princes of the moribund Moghul Empire. Tukaji died soon after his engagement of Gardner, and his state and army fell into the hands of the most capable and unscrupulous member of his family, as was so often the case in India during the period of anarchy that existed prior to the establishment of British rule.

The new chief, Jaswant Ras, of illegitimate birth, known in Indian history as the brave but ferocious adversary of Lord Lake, commissioned Gardner to raise and command a brigade of regular infantry, at the head of which Gardner took part in the battle of Ujain, in which Holkar defeated Sindhia, a rival Mahratta prince. The triumph of Holkar was, however, short-lived, for soon afterwards, in October 1799, he sustained a crushing defeat outside Indore, the chief city of his dominions, which fell into the hands of Sindhia. Most of Holkar's European officers now deserted his service and entered that of Sindhia, but Gardner and the others of English descent proved faithful.

Gardner remained with Holkar until shortly before the outbreak of the war between the Mahrattas and the English in 1808, when all British subjects were required by a proclamation of Lord Wellesley to resign their employment in native states, and those who desired to do so were permitted to enter the Company's service.

The careers of the European military adventurers of India were thus brought to a close, but some of the romantic incidents which befell Gardner while in Holkar's employment must be briefly recorded. Early in his career Gardner was sent by his master on a mission to Cambay, a Mahomedan state situated on the western coast of India, north of Bombay. The negotiations conducted by Gardner were, according to Eastern custom, inordinately protracted, and proved wearisome to the impetuous young Irishman. Alleviation came, for one day while sitting in durbar with the Nawab, a curtain near Gardner was gently pulled aside, and, to use his own words, 'I saw as I thought the most beautiful black eyes in the world. It was impossible to think of the treaty: those bright and piercing glances, those beautiful dark eyes completely bewildered me.' Gardner demanded the princess in marriage (for the dark eyes belonged to the daughter of the Nawab), and after many difficulties and dangers won her hand. The begum was only thirteen years old, but in spite of the unconventional circumstances of her wooing, proved an ideal wife and lived with Gardner in complete happiness for over forty years, sharing the hardships of his earlier campaigns.

The strange story of Gardner's quarrel with Holkar has often been told. While the latter was hesitating whether or not to join the Mahratta confederation in war against the English he sent Gardner to visit an English general (presumably Arthur Wellesley) to ascertain what terms would be offered him. The begum remained in Holkar's camp. Gardner's mission was fruitless, and on his return Holkar cross-examined him in durbar as to what had transpired. Angry at the failure of his envoy, and always violent and suspicious, Holkar became more and more threatening and offensive in his language. At last he said

to Gardner that he had been too long absent, and that, had he remained one more day with the English, the walls of his tents would have been cut down. Gardner had married his princess by Mahomedan rites, and had adopted the habits and prejudices of the followers of that religion. Holkar's words therefore conveyed an open and public insult which no self-respecting man could have endured. His action was prompt. 'Drawing my sword,' he used to say, 'I attempted to cut Holkar down, but was prevented by those about him. Ere they had recovered from their amazement, I rushed from the tent, sprang upon my horse, and was soon out of reach of my pursuers.' It is to Holkar's credit that Gardner's begum was permitted to join him.

Gardner now, for a short time, entered the service of Amrit Rao, brother of the Peshwa, but when, on the issue of Lord Wellesley's proclamation, Gardner handed in his resignation, Amrit Rao had him tied to a gun and threatened him with instant death if he refused to take the field. This threat was no empty one, for Holkar had just executed the three English-born officers in his service on account of a similar refusal to bear arms against their countrymen. Gardner, however, defied all threats, and, in the hope of wearing out his endurance, Amrit Rao postponed his execution and placed him in charge of a guard who had orders never to leave him for a single moment. Walking one day along the edge of a steep cliff which overhung the river Tapti, Gardner was suddenly inspired to make a dash for liberty, and instantly flung himself down the cliff. Recovering his feet he plunged into the river, and though hotly pursued effected his escape to the British camp.

Gardner, who about this time was promoted Brevet-Major in the English army, presently joined General Lake's headquarters, and, considering the circumstances in which he had quitted Holkar's service, felt no reluctance to take up arms against him. Lake employed him in command of a body of Jaipur cavalry which formed part of the irregular horse accompanying Colonel Monson's detachment in its unfortunate operations in

Central India during the rains of 1804. When Monson began his northward retreat, the irregular horse fought a rearguard action with disastrous results, and took no further part in the operations. Gardner escaped with his life, and was evidently not blamed by General Lake, for in 1809 he was employed to raise a body of horse for police and revenue duties in the great tract of country between the rivers Jumna and Ganges, recently added to the British dominions. Gardner established his headquarters at his own property of Khasganj, about forty miles from Agra, which he held by 'firman' from the Emperor of Delhi. The latter had adopted Gardner's begum as his daughter.

Gardner thoroughly liked and sympathised with his troopers and with his tenants, so that his corps of horse soon became famous throughout Hindustan, and attracted many of the best riders and swordsmen of the scattered armies of the native states. Gardner's corps being irregular, he could administer its affairs as he thought best, and it is recorded that he would give a sowar of exceptional skill as a swordsman as much as a hundred and fifty rupees monthly pay. At the same time his estates had greatly increased in value since they came into his hands, and he lived at Khasganj in great state and comfort. He was a keen sportsman, and was in the habit of making yearly expeditions after tiger to the Oudh terai in company with his brother-in-law Major Hyder Hearsey, who owned a large property on the eastern borders of Oudh. Hearsey, the son of an English officer by a native wife, had also been in the Mahratta service, and during an adventurous career had married another of the Cambay princesses. He was, like Gardner, fond of sport, and was also an ardent explorer. During an expedition to ascertain the true source of the Ganges, Hearsey traversed the then unknown mountain provinces of Kumaon and Garhwal, which had been invaded by the Gurkhas and wrested by them from their Hindu rajas.

Gardner subsequently travelled with Hyder Hearsey in Kumaon, and shot elephants by the beautiful lake Naini Tal, then unknown, but now surrounded by a large hill station. The



A SOWAR, or IRREGULAR HORSEMAN,
1815.

brothers-in-law also established friendly relations with some of the leading Gurkha officials in Kumaon, and, being soldiers as well as sportsmen, made a number of useful observations on the military possibilities of the country. Hearsey also, as a speculation, bought the provinces of Dehra Dun and Chandi from the fugitive Raja of Garhwal, who was living in a destitute state near Hearsey's property.

So it was that when the continued inroads of the Gurkhas into territory under British protection compelled the Marquis of Hastings to embark on the Gurkha War of 1814-15, Gardner and Hearsey were called into consultation as to the most desirable line of invasion of the mountain kingdom of Nepal.

The story of the Gurkha War has never been fully told, but it is generally known that, owing to the difficulty of operating in mountains and thickly wooded country, and to the deficiencies of nearly all the senior officers employed in the campaign, the early stages of the war resulted in a series of reverses terminating in something very like a standstill of the four invading columns. That under Major-General David Ochterlony alone continued to make a steady though slow advance over the mountains on which Simla now stands.

When war had broken out, Gardner, accompanied by his cousin the Hon. Edward Gardner, an officer of the Civil Service, was shooting in Kumaon, and Hearsey was carrying on a free-booting war in Kumaon, with a view to the private conquest of his purchased dominions. All three escaped with some difficulty to Indian territory, and after the early reverses to British arms referred to above, Lord Hastings employed Gardner and Hearsey to make an advance against the Gurkha garrisons in Kumaon with the object of weakening the force opposing Ochterlony in the north. This bold enterprise, for Gardner and Hearsey were to act with irregular infantry only, without artillery, was the suggestion of Gardner himself, and the conception of so sound though daring a military undertaking stamps him as a soldier of a high class.

As Gardner had the brain to conceive, so had he the bold hand to execute. His reputation, and that of Hearsey, stood so high in Oudh, that in a very short time Gardner advanced into Kumaon by way of the Kosi valley at the head of 3,000 irregular troops of good quality, while Hearsey, with 1,500 Rohillas, advanced from Philibhit, a frontier town. Gardner's plan was a converging movement on Almora, the chief fortress of the Gurkhas in Kumaon. The advance was one of extreme difficulties, for the portion of the Himalayas in which Kumaon lies was at the time densely wooded and unprovided with roads, beyond the narrow footpaths leading from village to village. Neither food nor ammunition could be carried save on the backs of the soldiers, for no coolies dared to face the Gurkhas, and the tracks were too rough even for pack animals. Gardner and Hearsey must have been men of the most daring character to march against the victorious Gurkhas under such conditions.

The fate of Hearsey's column was soon decided. It was surprised at an unfavourable moment and defeated with heavy loss, Hearsey himself being severely wounded and carried as a prisoner to Almora. Gardner with his stronger column advanced successfully through the mountains, passing, by the tracks discovered by him during his shooting expeditions, over the range where the station of Ranikhet now stands, and avoiding all the defensive positions held by the Gurkhas. Gardner arrived before Almora about March 20, 1815, and on the 22nd received a reinforcement of 850 men from India. With this force he sat down before the fort, but was unable, from the insufficiency of his means, to capture it, until, in April, he was joined by a column of regular troops under Colonel Jasper Nicolls, afterwards a Field-Marshal and Commander-in-Chief in India. On April 27 Almora surrendered to Colonel Nicolls, and Hyder Hearsey was released. During his captivity he had been tenderly nursed by a Gurkha chief whose life he had once saved from a bear when shooting in Kumaon. Gardner's services in the Gurkha War were not liberally recognised. He received the rank of Lieutenant-Colonel.

A controversy arose in which his friends somewhat indiscreetly claimed on his behalf all the credit of the operations in Kumaon. This was naturally resented by the Royal Army, and it is probable that Gardner suffered for the indiscretion of his supporters, for he was the last man to advertise his own performances, or to depreciate those of others.

It should be mentioned that though Gardner's Horse did not serve in the Gurkha War under his command, a troop, forty strong, under Lieutenant J. B. Hearsey (afterwards Lieut.-General Sir John Hearsey) highly distinguished themselves in an action at Pirazi, on the eastern frontier, on February 19, 1815, and were the only cavalry actively engaged during the war.

Colonel Gardner saw service at the head of his corps in the Pindari war of 1817-19, serving in the division under Sir Rufane Donkin, and his last campaign was that in Arakan in 1825, when the corps took the field with a strength of 621 sabres. Gardner's Horse on this occasion showed striking loyalty. The Burmese war was very unpopular with the Bengal army, and the feeling against it led to widespread disaffection. In a book called 'A Rough Sketch of the Bengal Irregular Horse' it is stated that Gardner's Horse 'gained much credit when, having lost the greater part of their horses, they served on foot with the infantry—a duty which native horsemen consider degrading. This regiment marched from Khasganj in the Doab to Arakan, a distance of above two thousand miles, without losing a man by desertion at a time when our native infantry were deserting by hundreds.'

There was a well-known native officer in Gardner's Horse, named Bhim Singh, who conveyed an immense bell all the way from a temple in Arakan to his own village near Khasganj; and there he built another temple to place it in, as a memorial of the services of his regiment and himself. This bell doubtless still exists.

When Gardner engaged in this his last campaign he was sixty years old, and long years of service in the fiery plains of India

had exhausted his strength, but not his martial spirit. In the despatches of Brigadier-General Morrison, under whom he served, there appears this paragraph, written in the pompous official language of the period. 'If ever instances of mental energy triumphing over bodily infirmity were exemplified, they have been displayed by Colonel Gardner of the 2nd Local Horse, who on each occasion when there was a probability of the cavalry being engaged, caused himself to be removed from his palanquin, to be placed on his horse, though so weakened by long sickness as to be unable for any length of time to prolong the exertion.'

Gardner survived his last campaign some ten years. He resigned the service in February 1828, and died at Khasganj on July 29, 1835, his faithful princess following him to the grave one month later.

The property at Khasganj still belongs to the descendants of Gardner and the princess of Cambay, who to-day form a small Christian community in that secluded portion of the United Provinces of Agra and Oudh. Gardner's descendants are also interesting in that his son married into the royal house of Delhi, so that the present zemindar of Khasganj is not only descended from a country gentleman of Ireland, but also from the Emperors of Delhi—the 'Great Moghuls' of our forefathers. From the marriage of a daughter of Gardner and his princess with a cousin who was in remainder to the peerage conferred on Admiral Alan Gardner is descended the Indian claimant to that title.

CAVALRY AND HORSE ARTILLERY.*

By COLONEL F. D. V. WING, C.B.

The dearth of data for forming opinions on the above subject furnished by the last two campaigns—Surprise—Flank attacks—Co-operation.

IN forming opinions and considering questions about the tactical handling of troops we usually make deductions from the experiences and lessons of the latest campaigns.

The last great campaign, that between Japan and Russia, was for several reasons devoid of any striking examples of the use of Cavalry, consequently deductions from its study as regards the use of Horse Artillery combined with Cavalry are difficult to find.

The chief reasons for this failure in the use of Cavalry seem to have been ;

1. The unsuitability of a large part of the area of operations for the employment of Cavalry in large bodies.

2. The unsystematic employment and inefficient higher command of the Russian Cavalry.

3. The comparatively small numbers of the Japanese Cavalry.

Previous to this campaign the last great war was that between the British and the Boers.

This war was also wanting in instances of Cavalry combats, inasmuch as the Boers were practically an army of Mounted Infantry without either organised Cavalry or Horse Artillery.

Our ideas, therefore, of fights between bodies of trained Cavalry, mutually supported by Horse Artillery armed with

* A previous article on this subject was published in the *Cavalry Journal* of April 1906.

modern quick-firing guns, must be formed by imagination rather than by experience, and these ideas must be based on the capabilities and methods of the two arms combined with presumptions of the nature of how these fights will be carried out.

Because late wars do not happen to have given any prominent examples of such fights there is no reason to presume that they are a thing of the past. The recognition of the Cavalry division to be used as an independent fighting force, to search out and defeat and break through the hostile Cavalry, removes any doubts as to the probability of Cavalry combats in future wars, at least from the minds of those who are best fitted to judge these matters, and it only remains to consider how to obtain the best mutual co-operation of the sister arms of Horse Artillery and Cavalry.

The chief methods of attaining success in Cavalry fights are by :—

1. Surprise.
2. Attacks on flanks, or when the enemy is in vulnerable formation.
3. Successful co-operation of Horse Artillery.

SURPRISE

The success that can be obtained by surprise depends mainly on the information that is obtainable of the enemy's locality and movements, assisted by the skill in leadership, enterprise, and eye for country of the commander.

A Cavalry commander should have a system of scouting and communication organised in his command by means of which he can have full and early knowledge of the enemy's movements, and must then depend on his eye for country, combined with such individual knowledge of locality as may be available to help him, to either advance unseen towards the enemy, or else to remain hidden until the latter's near approach gives an opportunity of a rapid surprise and attack.

The necessity for information applies equally well to both sides, and to effectually bring about a surprise necessitates the breaking down and forcing back of hostile patrols in order to prevent them giving timely warning of the attack which is threatening them.

FLANK ATTACKS

Attacks on flanks or when the enemy is in vulnerable formation come very nearly under the heading of surprise, which is an essential part of such operations ; but they may be further assisted by skill and rapidity in manœuvre, combined with the quick perception and alertness of the leader.

Supposing that, other things being equal, two bodies of Cavalry come mutually in sight in similar formations, the advantage must lie with that side which most rapidly gets into suitable attack formation and charges home first, especially if the direction of the charge can be made on a flank, or against a loosely formed body of the enemy's troops, or if a mass of strength can be brought in succession against smaller bodies which have not been able to concentrate, and thus break them up in detail.

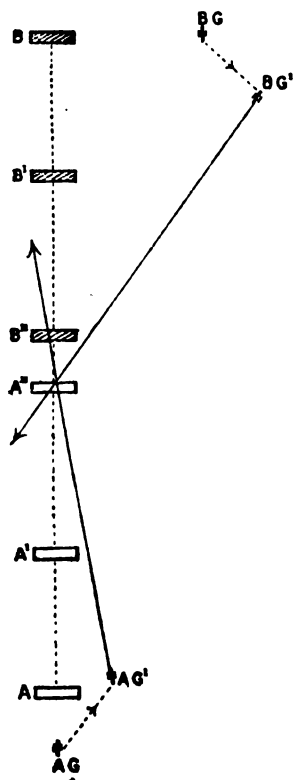
CO-OPERATION OF HORSE ARTILLERY

The co-operation of Horse Artillery is a matter of great importance, as, if successfully carried out, the power of quick-firing guns must have a predominating influence on and be a potent factor in the result of the fight.

Instructions to attain this object are issued both in Cavalry and Field Artillery training manuals.

The closest co-operation is necessary between the Cavalry commander and his Horse Artillery commander, and the necessity for quickness of thought and action and an accurate eye for country is as essential to the latter as to the former. It will generally be the business of the guns to remain hidden and reserve their fire till the attack is about to commence, when

they will gallop into the most suitable position to open a rapid fire on the enemy's Cavalry until almost the moment of impact. Their best position for this purpose will be an advanced position on the flanks of the direction of the attack, and hence when a



A and B = positions of opposing Cavalry as they come into view,
 AG and BG = positions of opposing guns as they come into view,
 AG' and BG' = places where opposing guns come into action.

When opposing forces are at A' and B' the fire of red guns is masked, while blue guns can continue firing until opposing forces are almost in contact at A'' and B''.

masked when the opposing forces are at A' and B', while blue guns can fire till they are almost in contact at A'' and B''.

In case of a sudden attack the Horse Artillery commander must be ready to select the best position for his guns and gallop

into combat is imminent they should be on the flank of the Cavalry with which they are acting, ready to press forward into their position in time to give full support to their own troops, but not so soon as to prematurely disclose the attack to the enemy.

Otherwise their fire will be lost for such time as it takes them to move away to a flank, or if they come into action near the line of the direction of the attack their fire will soon be masked by their own Cavalry.

In the diagram, if A and B are the respective positions of red and blue forces at the commencement of the attack, suppose that red guns come into action near the line of direction of the attack, while the blue guns come into action some way to a flank. It will be seen that red guns' fire is

them into action without reference to the commander of the force; but the object of the latter should be to have sufficient warning to enable him to manœuvre so as to draw the enemy across the fire of the guns, and thus shatter or weaken him before contact takes place.

An alternative object would be to use the guns as a bait and induce the enemy to make a direct attack on them, and then to launch a counter-attack on the flank of his charging squadrons.

The former course, however, should give the best results, as the effect of well-directed enfilade fire should be more deadly than a frontal fire against advancing lines of horsemen.

The commander of a mounted force must be well to the front for the purposes of observation and early information, and at such times his Horse Artillery commander should be with him.

When the enemy is located and the plan of action determined on, it is a question for the consideration of the commander as to what extent he should make the guns the pivot of manœuvre in order to effect the best tactical results from a combination of the two arms.

Natural features of ground, hills, woods, or trees may intervene to make variations in the course of the fight, but the skill and speed in surmounting such obstacles will be taken into account and allowed for in the dispositions of the troops, and will depend on a thorough knowledge of the commander of the object to be attained, and his ability to cope with existing circumstances, as well as the co-operation and intuition of subordinate commanders.

On such occasions there must be often but little time for giving detailed orders, further than the objective and direction of attack, and the cohesion and co-operation of the units will depend on their previous training and powers of adaptability to the wishes of the commander.

The duty of the guns will be to take up the best position from which to fire at the enemy's Cavalry for as long as possible, and their position must be selected not only by considering the

enemy's position at the commencement of the attack, but also the positions of the two forces as they approach one another.

Having taken up this position, a rapid fire must be poured into the enemy's Cavalry, regardless of possible fire from his guns or of attack by bodies of Cavalry.

It certainly seems that greater freedom of movement is given to the guns if a small escort, such as a troop of Cavalry with a battery, is provided in order to keep off by dismounted rifle fire attacks from the flank or rear which might very probably be made by detached bodies of the enemy.

Should the enemy swing one part of his attack towards the guns, a corresponding swing of the direction of the attack should be made by some of the troops of his adversary to bring a charge on to the enemy's flank, while the guns would have a target advancing directly towards them instead of one crossing their fire.

Whatever phase the fight assumes, there is no doubt that well-handled quick-firing guns must have an important effect on the result, provided that the subordinate leaders of the units of both arms adapt themselves to skilful handling on the part of the officer in chief command.

This adaptability of all units to the wishes of their commander in the field can only be acquired by a system of constant practice and exercise together.

The principles of Cavalry actions are the same both for small and large bodies of troops, and constant opportunities should be given to Cavalry and Horse Artillery to practise combined exercises against similar forces, commencing with squadrons of Cavalry and sections of Horse Artillery, and working up to larger forces of regiments or brigades of Cavalry, with batteries or brigades of Horse Artillery on either side.

Only by a thorough knowledge of each other's requirements, formations and pace of manœuvre can sufficient co-operation be achieved to attain success in war.

THE USE OF THE SECTION

The successive steps from training in the mass to individual training with the section as the unit.

TRAINING IN THE MASS

THE old sword exercise was a thing that always went against the grain with me.

You were stuck in a most uncomfortable and unnatural position, and you were taught to wield a heavy, ill-balanced weapon in every direction, with a sweeping movement made with such grace as these conditions would allow. When you became adept at taking up this awkward position, and in waving, stopping, and pointing your sabre exactly at the same angle and in exactly the same time as your neighbours in the ranks, you and your whole squad were passed out of the purgatory as trained swordsmen.

The original object of the sword exercise was to make a man a swordsman. But the steps towards that end came gradually to be of greater importance than the end itself; you were scarcely tested in hand-to-hand combat to determine your fighting ability as a swordsman, but you were judged by your ability at collective drill with the sword. And so it is with very many other details of the soldier's efficiency.

The object of military training and drill is to make an ordinary man into a soldier.

With a large number of men to train and few to instruct them it became usual to train them in masses, and not individually.

At the time when I joined the Service the complete regiment

was the unit for instruction, and it was trained by the Adjutant for the Colonel's use. No other officer had any responsibility in the matter; he merely had to see to it that he could give the right word of command according to the occasion.

A machine-like drill resulted, fairly satisfactory so long as the Colonel adhered to the recognised pattern of manœuvre, but if some unexpected move was called for, it often produced trouble and a nasty show of feeling all round.

EXTENSION OF RESPONSIBILITY

Later on the squadron was made the unit for instruction, after a good deal of opposition, and the squadron leader became the officer responsible for the efficiency of a squadron.

This proved a very great step towards efficiency.

Since the war in South Africa the troop has very rightly taken up its place as the further unit for instruction, and the subaltern or non-commissioned officer in charge has become a responsible being.

Several failures on the part of the Cavalry to come up to expectation in the war were directly due to the fact that the troop had, under the exigencies of war, automatically become the unit for work, that is, for outposts, reconnaissances, convoys, &c., and that some 70 per cent. of the troops were commanded by non-commissioned officers who had never had responsibility thrust upon them before; and though these non-commissioned officers in many cases did their duty with conspicuous zeal and capacity, it could not be expected that they could all have the necessary confidence in themselves, seeing that they had never had the training required for such work.

It came to be recognised that the troop was the proper unit for instruction, not only because it was a unit for work in war, but because this method decentralised responsibility and gave more instructors to fewer pupils, and thus instruction came nearer to reaching the individual soldier.

Latterly this principle has been still further carried out, and the section of eight men has become the unit. By this means the non-commissioned officer in charge of a section is invested with responsibility for the efficiency of his section; he has to teach it in peace and to lead it in war; and he thus carries the key to efficient instruction, namely, the individual training of each man.

In this way also the soldier himself is made into a responsible being, since he is expected by his section leader to know each item of his duty, and to perform it.

But the undoubted value of the section is even now hardly recognised to the full. It was a long time before the value of the squadron system was appreciated and made use of. Commanding officers did not like giving away responsibility and letting the strings of government go from their hands; and a good many squadron leaders in those days did not like taking it over, for some had very little knowledge themselves or power of imparting knowledge to others; their main effort hitherto had merely been to escape being found out.

Even where an officer did know his drill book, he clung to that as his fetish, and felt when he knew it by rote that he was pretty safe and able to deal with most field-day movements or to answer the questions of an inquisitive general. He had never been expected to use his own imagination or common-sense in dealing with a tactical crisis in the field or in devising instruction for his squadron. And latterly, with the drill book cut down to the enunciation of simple principles, the details being left largely to common-sense, the officer felt that the very ground had been cut from under his feet.

It is a very different thing now, when each squadron leader not only trains his squadron in every detail in his own way, but would resent any kind of intervention or even criticism of his capabilities in any line; and the emulation between squadrons has produced a higher form of efficiency all round.

THE SECTION AS THE UNIT

The same process of evolution has of later years been gone through in making the troop the unit for instruction, and we are now passing through the same stage in the matter of the section.

The Cavalry subaltern is no longer the butterfly you read of in novels. If you want to see real keenness, go and talk to a young subaltern about his troop, and you will meet with it there. The subaltern who has got his troop up to a real state of efficiency hardly likes to hand over the strings to his non-commissioned officers, and yet when he does so he finds, as has been the case with the troop and the squadron, a further step in efficiency has been gained.

The older breed of non-commissioned officer, similarly, would not like all at once the idea of responsibility, and would mistrust his powers of imagination. But his fetish, the drill book, has been cut from under his feet, and no longer supplies him with a string of words, which, if repeated parrot-like, used to do all that was necessary for his mission in life.

So he would set his face against the section system, and tell you it cannot be worked in with barrack duties, &c. But his successor, the modern non-commissioned officer, well-read and keen, soon catches on, and assumes the responsibility that is expected of him. He delights in teaching his men, and would resent any transfer of men or horses from his section. He gets to know each individual, and to know where there is any difficulty, and how best to remedy it. His section is the smartest all round in the troop, or, if it is not, he means that it very soon shall be, whether in riding, shooting, scouting, or horsemanship, and so on.

He cannot afford to let a man remain a 'slacker' in his section, and with the good class of men we are now getting he should indeed have no difficulty in making every individual a good soldier.

With such spirit of emulation in the individual the standard of efficiency in the whole squadron all round is bound to develop to the fullest extent.

THE USE OF THE SECTION

The section is a self-contained body, and should be, as far as possible, employed as a unit complete for every duty, whether it is to find a barrack guard, or an outpost fatigue party, despatch post or patrol. It can supply automatically its own cooks, sentries and reliefs, &c.

For work in the field under modern conditions of war the section co-operating intelligently under its non-commissioned officer is an invaluable means of success. But it must be kept as far as possible intact as a permanent body, and its men and horses should never be changed or transferred if it can be avoided.

The part of the officer is to select and educate his non-commissioned officers with the greatest care, and then to give them responsibility and a free hand, even to the extent of letting them make mistakes, and thus gain their experience.

If he expects a great deal from them he will get it, and if he encourages '*esprit de corps*' and emulation between sections he will get a high standard of work, discipline, and efficiency out of his men.

LONG REIN DRIVING

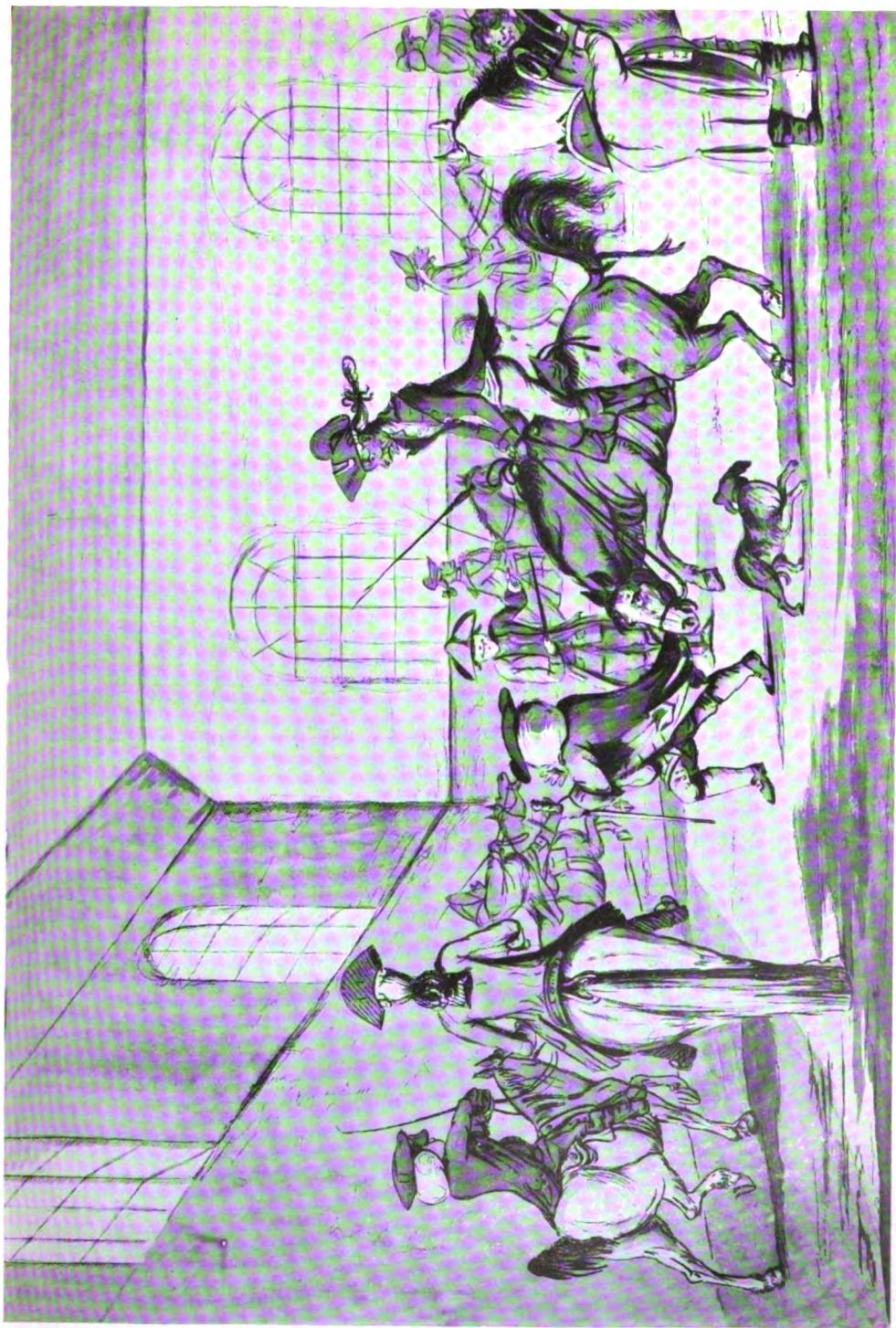
By MAJOR N. BIRCH, R.H.A.

Showing that in England long rein driving was practised several hundred years ago—Extracts from various writings on the subject—The necessity of skilful handling—The chief advantages derived from it.

Now that the subject of long rein driving is embodied in an official text-book, it may be of interest to trace the origin of the art, and to emphasise the many advantages derived from its practice in the initial stages of horse training.

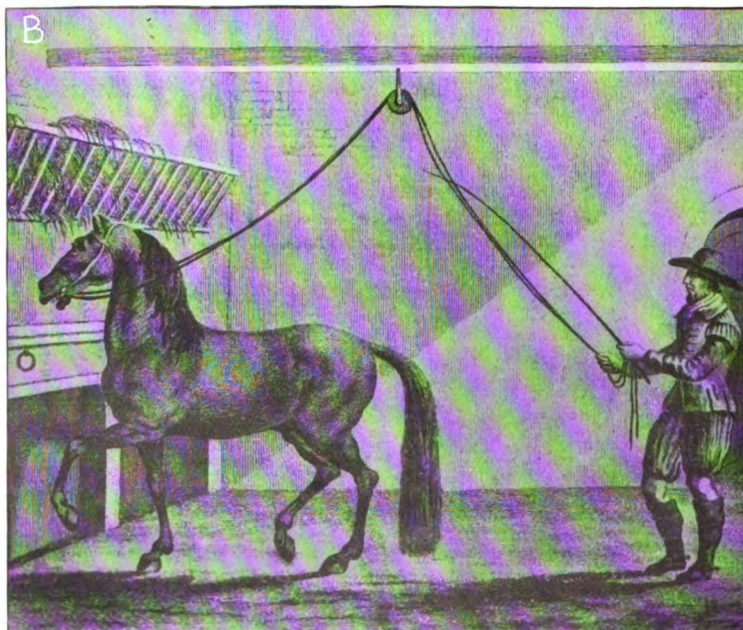
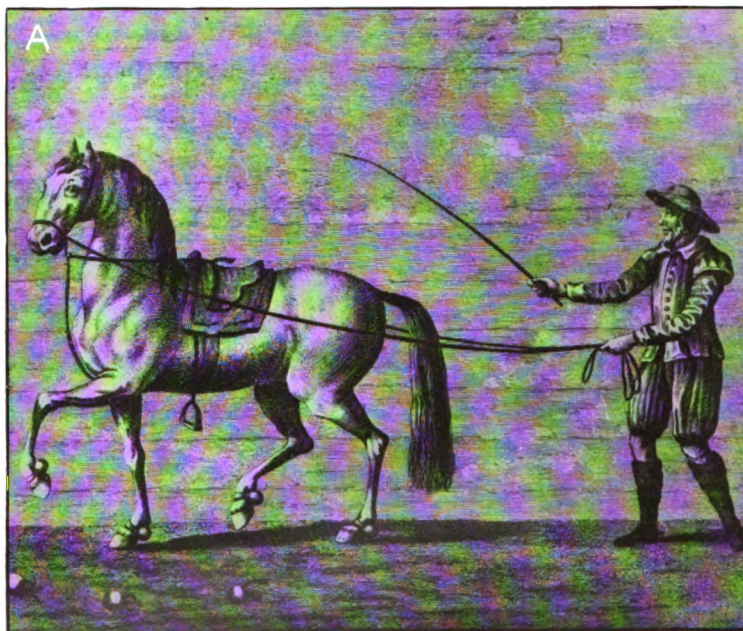
An Australian named Galvayne claims that he introduced the correct and scientific way of using the long reins into England in the eighties, and Hayes, who was lecturing in this country on horse training over the same period, states that he learnt their use in Ireland from a Mr. John Hubert Moore. This gentleman derived his knowledge from an old Irish breaker named Fallon, who was born in the latter part of the eighteenth century. Hayes also seems to infer that the practice was unknown in England until he himself introduced it.

In the year 1624, however, we find that an old English horseman and writer published a work entitled 'Browne, his fifty years' practice, or an exact discourse concerning snaffle-riding, etc.,' and in it addresses his son as follows on the subject of long rein driving: 'And now, loving son, I will heere, with God's helpe, set you downe a perfect and unfaliable way how to teach your horse without chafing or heating him . . . then put a sursingle about him, and put your martingale to the sursingle; then take two good strong lines (or ropes) so long as will reach farre behind the horse . . . make fast first the one corde to one



A RIDING HOUSE, 1780.

LONG REIN DRIVING.



side of the snaffle and the other to the other side of the snaffle . . . Now when you have him perfect on either hand and he doth set his trot comely and stately, you may venture to set a saddle on him.' Plate A illustrates Mr. Browne's methods, and it appears that the man in the picture is working the horse more or less on a circle. Mr. Browne explains that he only put the 'rollers' shown in the picture on to the horse's feet when the animal would not 'goe proudlie' and had a 'low' and not a 'loftie' trot. These rollers or 'helpes,' as he sometimes calls them, are not unknown in dealers' yards at the present day, although now of a different pattern. The plate shows how careful Mr. Browne was to place the horse's head; but he could have got practically the same result, without ruining his horse's mouth, if he had attached the standing martingale or the bearing rein to the nose band—both would hardly have been necessary. The bearing rein should of course be of the American or overhead pattern.

To obviate the employment of any form of the latter device where its use is indicated, Browne suggests another method (Plate B), which is best described in his own words: 'The man, gently and by degrees, drew the head upward, and as the horse followed the rein, and raised his head, the man was instantly to slacken the hand and give him his ease; then pull him up again and so continue soliciting the mouth, and raising the head, till he had brought it to the pitch where he intended to fix it. . . .' This method is certainly better than the dumb jockey,* so rightly condemned by Count Martinengo Cesaresco as a mouth-hardener, but if persisted in would be likely to make the horse go too light in front and become unwilling to face his bridle. Hayes says that 'pillars' have fallen into disuse for the same reason.

In 1743 a copious work entitled 'A General System of Horse Management in all its Branches,' by William Cavendish Duke of Newcastle, was translated from the French and was

* A Service pattern of dumb jockey or reinbearer has recently been approved, in the construction of which elastic or rubber is employed to ensure such give and take as to remove the possibility of the horse's mouth being hardened.

much studied by English equestrians. In it there is no mention of long rein driving, although Berenger, writing but three decades later (in 1771), says : 'This manner of working horses has long been practised in maneges of no mean fame established in different nations, particularly among the Italians and in Germany.' He then goes on to describe the advantages of this and other ways of working on foot in horse training, and further states : 'This method of working horses seems to have been unknown, in a great degree, to ancient horsemen.'

In 1761 Henry Earl of Pembroke published a book entitled 'Military Equitation, or a Method of Breaking Horses,' and as the soldier author was well known as a most expert horseman and an authority on all things equine, it seems reasonable to assume that his book carried great weight at the time, both in and out of the Service. It ran through four editions, if not more, and on October 1, 1793, was accepted by the Adjutant-General and issued as the first text-book on military equitation. Berenger states that Lord Pembroke censured and condemned the practice of using long reins, but a study of the latter's book hardly bears out the assertion. Lord Pembroke merely stated that 'a good rider mounted, who feels every motion of his horse, must act with more precision, delicacy, and exactness,' but that working in hand 'is very particularly useful in military equitation, because it spares the horse the fatigue of any weight upon him . . . and is always very useful in suppling and determining horses.'

The probable reason why long rein driving fell into disuse about this time was that in Lord Pembroke's work no mention is made of driving on the circle with the outer rein round the horse's quarter, which gives the driver perfect control in the initial stages. His Lordship preferred working the horse on foot with two men, relying for the true movement of the quarters on the whip, and on the manipulation of the bridle by the man walking by the horse's head. Plates c and d illustrate all he advocated in the way of long rein driving, and it will be noted

that the tackle was so adjusted as to form a gag, and that the driver had but little control over the lateral movements of the horse. Lord Pembroke built two 'riding houses,' one at Wilton,

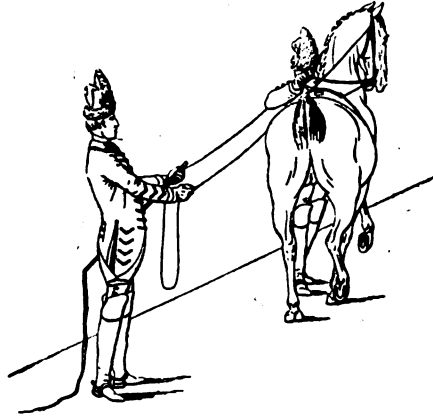


PLATE C

and one in London ; but when tried outside his own particular schools it is evident that the practice of long rein driving as described by him met with but little success and gradually died

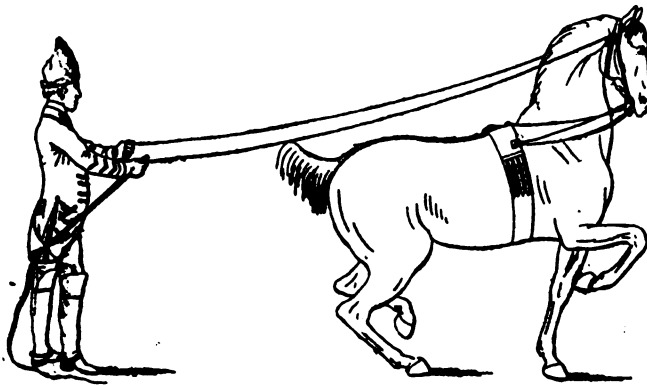


PLATE D

out. He admits himself that 'he has seen but two people succeed in working horses in hand to any considerable degree, although it cannot be looked upon as a very difficult thing.'

The book is one of absorbing interest and contains many hits at the military equitation of that time, some applying in a minor degree to the present day. It is a pity, with his undoubted knowledge of the art of horse training, that the author did not go deeper into the subject of long rein driving, and experiment with the reins on the same level as the traces of a draught-horse.

Adams, the writer of a comprehensive work entitled 'An Analysis of Horsemanship ; teaching the whole Art of Riding in the Manege, Military, Hunting, Racing, and Travelling Systems, together with the Method of Breaking Horses for every purpose to which those noble Animals are adapted' (published in 1805), makes no mention of long rein driving except for training horses for 'Ornamental Manege' riding, and advocates working with an assistant on the same lines as Lord Pembroke. Fillis and Baucher, who were authorities on riding in the middle of the last century, used the single rein only.

It therefore followed that when lecturers toured the country in the eighties and demonstrated how horses could be handled with a pair of long reins, the appliance was considered a new one ; poor Mr. Browne and his work had been forgotten. These lectures produced but little impression in England, and it was not till 1904 that the subject was embodied in the Cavalry training. Why some twenty years passed before Hayes's valuable works on equitation were consulted by those responsible for the military text-books must presumably be attributed to the intense conservatism of the Army.

If it were possible to give every untrained horse ten days' long rein driving before backing him, there would be fewer intractable horses in England, but the difficulty would at once arise of finding qualified men to do it. It is an art only acquired by long practice ; good hands are a *sine qua non*, as the webbing reins weigh nearly $2\frac{1}{2}$ lbs.,* and though supported they are heavy on the horse's mouth. A trained animal put into the lead

* Leather reins weigh 4 lbs., and rope is unsuitable for the purpose, as it is liable to give heel-galls if the horse breaks away.

of a coach for the first time seldom faces the bit; he is unaccustomed to the weight of the lead reins. An exact knowledge of the paces of the horse is equally indispensable to the long rein driver; the outside rein does not necessarily prevent the animal's hind-quarter from flying out; everything depends on the handling.

The advantages derived from the use of the long reins in the initial stages of horse training are briefly as follows:—

1. The horse is under perfect control from the first.
2. He can be mouthed, balanced and handled in the best way with the least possible distress and discomfort to himself.
3. He can be taught to move compactly and correctly at all paces.
4. No difficulty generally occurs in backing him after a few days' training.
5. Long reins offer the best means of teaching a horse how to jump.

The appliance is also a most useful means of correcting faults in a broken horse.

The writer agrees with Hayes that, to commence with, the billets should be attached to the headstall, and the horse made to obey the indication of the reins before they are buckled on to the snaffle; he is, however, not yet convinced that Hayes * and other authorities are sound in advocating that, after the horse has learnt to move with the outside rein round his quarters, but before he is thoroughly trained, the driving should be continued with the rein brought over the top of his back and resting on the driving pad. The case is different if the horse is intended for harness work.

* *Cavalry Training* 1907 agrees with the writer. Sect. 74 says: 'As soon as the horse goes quietly to both hands (i.e. with the outer rein over his back and the inner rein coming direct from the horse's mouth to the breaker's hand) the inner rein should be passed through the ring on the pad, and the outer rein passed round the horse's quarter, and the regular training commenced.'

**IMPRESSIONS OF AN INFANTRY OFFICER
AT THE CAVALRY MANŒUVRES, 1907**

BY CAPTAIN B. H. LEATHAM, *1st Battalion Yorkshire
Regiment*

A short account of points noticed during patrol work, and when the Brigades were in contact, from an umpire's point of view.

HAVING been asked to write my impressions from an Infantryman's point of view of what I noticed during the past year's Cavalry Manœuvres, as a member of the Umpire Staff, I do so with the greatest diffidence. I will say at once that it was one of the most interesting weeks I have spent in a military sense, and the kindness of the many new friends in the Cavalry we Infantry officers were thus able to make encourages me to write exactly what I thought of the various events. I feel I am talking of things about which every Cavalry soldier knows far more than I do, but I hope any criticisms I make will be accepted in the same friendly spirit in which I write them. I can deal very little with the work of the 1st Cavalry Brigade, as I was attached to the Household Brigade the whole time.

I intend to divide my impressions into two parts: Part I. consisting of the preliminary patrol work before the main bodies came into contact; and Part II. after contact had been gained.

PATROL WORK

It is unnecessary to mention the General and Special Ideas, but suffice it to say that the Household Brigade and the 1st Cavalry Brigade each concentrated some 80 miles apart, and the

duty of each was to find each other's main body, and to bring about a decisive Cavalry fight, to enable a way to be cleared for the further reconnaissance of their respective opponents' armies, and to form a screen behind which their own commander could manœuvre his divisions with secrecy and in safety.

I joined the Household Brigade, which concentrated at Broughton, near Banbury, on August 21, the 1st Cavalry Brigade concentrating at Alresford. At 3 A.M. on August 22 I left with a patrol of the Blues, consisting of one officer mounted on a horse and six men on bicycles, with orders to march *via* Chipping Norton and Cirencester; and there were two other officers' patrols, of the same composition and strength, to march *via* Kingston Bagpuze and Abingdon respectively, the whole making the railway-line Bassett-Didcot their objective.

My patrol of the Blues having reached Cirencester, 38 miles, in about 6 hours, rested there five hours, and eventually reached Wootton Bassett at 6.30 P.M. the same evening. This march was nearly 60 miles, a good performance for the horses, but as regards the bicycles I have one or two suggestions to offer. It appeared to me that the power of the bicycle was not made quite the most of. The bicycles and the horses were kept too much together. I thought it would have been better to have sent a couple of cyclists straight to Cirencester on leaving our camp at Broughton, with the others keeping connection with the slower moving horses. Again, on reaching Cirencester I thought scouts might have been sent direct to Wootton Bassett while the horses rested at Cirencester, and if necessary on to the Marlborough Downs, some eight miles further, from where they could get an admirable view for many miles of the country further to the south. Here a man might have been posted till dark, when he could withdraw to Wootton Bassett. As it was, though every precaution was taken while resting at Cirencester, yet perhaps some useful information might have been gained by men pushed out into the open and commanding country a few miles to the south, and this is so easy with bicycles. With these mixed

patrols, in addition to the mounted officer, I believe three or four men on horses would be most useful, because then it would be easy to send away a horseman across country to visit farms, or woods, or hills in the neighbourhood. If this would make the patrol too large, even one extra horseman would have been of great help. With bicycles keeping to the main roads, it is so easy for the enemy to watch the movements from some commanding ground, and then to cut off their messengers.

Each of these officer's patrols had a contact squadron some 20 miles in rear as a support. The patrol I was with had its contact squadron making for Faringdon, about 20 miles N.E. of our objective. Excellent communication was kept with this support, some of the cyclists of the patrol covering between 80 and 90 miles by taking messages. Frequent negative information was sent in which must have been of great value. How often this kind of information is forgotten, and how important it is to know that the enemy are not in a certain place at a certain hour!

As regards the sending of news from the patrol to the contact squadron, great fatigue would have been prevented to the patrol, and much time saved, if a system of posts could have been established along previously arranged roads between the patrol and its contact squadron for the purpose of despatch riding. Besides, one knows only too well how soon a party of six men on patrol get used up and scattered if they have to be employed taking messages great distances.

For the night we bivouacked on the bridge crossing the canal a mile south of Wootton Bassett, and at 8.30 A.M. on August 23 we moved off for the Marlborough Downs with cyclists well ahead, two of whom were sent direct to Marlborough, where they stayed the greater part of the day. We had lost two of our men, as they had been sent after dark to the contact squadron, and, having missed their way amongst the endless by-roads in the neighbourhood, did not reach their destination until daylight, though their messages eventually reached the

proper quarter none too late. This instance I think confirms the necessity for despatch-riding posts along previously arranged main roads.

Nothing having been seen of the enemy, the officer in charge of the patrol determined to work along the Downs towards our main body, which he expected to pick up on the Lambourne Downs. This he did with success, being able to report small bodies of the enemy's scouts working towards Swindon, and after 22 miles that morning we reached camp about 2 P.M., making a total of 82 miles in 35 hours. Another patrol of the Blues beat even this, and covered a good 90 miles in the same length of time.

The work these patrols accomplished must convince everyone of the enormous power of bicycles in a civilised country, and I feel sure they have a great future. They will save many hundreds of horses, and the distances they can cover should be invaluable to a commander. But some carefully thought out and arranged system must be made for bringing back their information, and everyone in the patrol must know exactly what these arrangements are, and what he is to do if they break down.

THE BRIGADES IN CONTACT

By 10 A.M. on August 24 the Household Brigade was in the same position on the Lambourne Downs which it had reached the previous day, namely, about White Horse Hill. Contact with the 1st Cavalry Brigade had not been actually obtained, but information from patrols pointed to an advance on their part in the direction of Swindon. At 10 A.M. officers' patrols were again sent out, and I went with the same one of the Blues as I had previously worked with, this time all mounted on horses, as we were on the Downs. We soon saw a few of the enemy's scouts, and it was most noticeable how quickly the men picked them up. There are deep valleys in the neighbourhood, and a squadron of the enemy passing through one of them was easily reported by

the patrol on the high ground. Careful piqueting of the hills on the flanks would have made this squadron secure : this method is the only safe one when moving through a valley. About 12 midday the officer in command of the patrol came into touch with what proved to be the advance-guard of the 1st Cavalry Brigade near Baydon, and almost immediately behind them their main body. He was chased by their scouts, and having to take a circuitous route only got his report into headquarters just before the two forces 'bumped' into one another. I don't like using the word 'bump,' but bump they did, as they reached Parkfarm Down simultaneously without the slightest knowledge of each other's presence. All they could do was to charge at once, and this they did with spirit. Such a *mêlée* ensued that it is impossible to say what would have happened ; only war could decide. But it was most gratifying to see what excellent discipline was maintained, for, with all the apparent confusion, there is no doubt that the squadrons of both sides were in perfect order, and followed their leaders admirably and re-formed at once.

It may appear easy to criticise when one can ride about in the open between two opposing forces and see almost exactly what is going to happen ; but the following seemed to me to be the causes leading up to this strange fight, as they impressed me at the time. In the first place, to deal with the advance-guard of the 1st Cavalry Brigade, it struck me that they were not nearly far enough in front of their main body, nor had they nearly sufficient scouts out, and those that were out were not nearly far enough to the front. The same criticism seemed to apply to the Household Brigade, who had no local protection, and seemed to trust to their officers' patrols—three in number—to guard their *immediate* vicinity. It must be remembered that the Household Brigade were more or less stationary, and had been so for some time, while the 1st Cavalry Brigade were on the march. Therefore it appeared to me that the former ought to have had some sort of system of outposts. Standing patrols

on Parkfarm Down and Weathercock Hill would have given ample warning to the Household Brigade of the approach of any body of troops for miles round.

The next two days of the manœuvres consisted in the Household Brigade executing an attack against the 1st Cavalry Brigade in position, and *vice versa*. What impressed one most as an Infantryman in these attacks was the number of times squadrons advanced against entrenched positions mounted. These tactics seemed impossible, dismounted action being the only chance of success against entrenchments held by modern rifle fire, and where this dismounted action was used it was generally successful; but the Cavalry soldier seems very loth to leave his horse.

The final day of the manœuvres was devoted to a drill of the massed Brigades. It was most interesting to watch, and served to confirm what had been most noticeable throughout the manœuvres, namely, the excellent riding and discipline of the two Brigades.

CONCLUSION

The patrol work throughout seemed very well done indeed, and there was one thing in particular which I noticed about the special patrols, and which I have not mentioned. These patrols were not diverted from their object by the enemy's patrols and small bodies, but kept in mind the great principle of trying to find the main body, by avoiding attracting attention. The enemy's patrols should be dealt with by the contact squadrons and other patrols sent out for local protection.

We all noticed how well the men rode, and how well they looked after their horses. They worked with the greatest keenness, and their officers could never ask too much of them by day or night.

In conclusion I should like to say how much appreciated the system is of enabling officers to see the work of other arms than their own. It creates a great sympathy, and shows practically how much the various arms are dependent on each other.

THE MOUNTED MAN IN NEW ZEALAND

By COLONEL A. BAUCHOP, C.M.G.

The Material of the Mounted Forces of New Zealand—The Habits and Customs which tend to Good Horsemastership—Training and Manœuvres.

THE mounted branch of the Military Service in New Zealand is composed almost entirely of the farmer, a dweller out of towns, who owns his horse and who has clearly defined ideas of sharing the duty of defending his islands.

These mounted rifle corps form nearly half of the total number of troops in the country, and are well distributed through both islands.

The men who form this branch have, as a rule, been working and riding horses all their lives, and live with their horses quite as much as the Cavalry of the Line. Their methods in regard to the care of their horses in many ways are original, but the result quite justifies the means, and in many districts the distances got out of horses in long rides is a matter of personal pride and gratification.

These horsemen are plentiful, and are already rough-hewn from infancy in the care of their animals, and have little to learn on the practical side of the care of horses; they are constantly in the saddle in looking after large tracts of territory, where roads are non-existent and where their 'eye for country' is the only guide in indicating the shortest routes to different localities.

Hard fare and long rides are of daily occurrence, while at seasons on sheep-runs the mustering of the flocks entails most exacting physical fitness in any one taking part in this work, and

as this arduous work goes on from daylight to dark one marvels at the time cheerfully given to become (as far as may be) efficient in military matters.

In country districts, where local excitements are few, a feeling of emulation is a factor in their efficiency, and occasional Military Tournaments (at which great importance is attached to the recognised Cavalry items) foster a spirit of smartness and cleanliness that is always evident in their regimental life.

Nor is time grudged in this preparation for tournaments or camps of training, though most of the men have to arrange for friends or neighbours to do some necessary work on the farm while they qualify at the annual week's continuous training.

Men are always to be found in the islands who will ride seventy to eighty miles to one of these training camps, which usually last seven to eight days.

Where little time can be given from a life of constant work, one wonders at the scope of subjects included in this camp training ; but where men are eager for efficiency, and physically untirable, one cannot feel surprised that from daylight until dark drill and field manœuvres proceed in well-diversified round, while in the evenings there are lectures given by the Staff Instructors on Musketry, Topography, and Reconnaissance.

In one of these long days time is always found after work for the usual camp singing and jollity, and where chances of meeting one's fellow-man are not numerous the value of this social phase of the training can never be overlooked.

As the policy of the Government is to have a purely voluntary service in the islands, one can easily understand that the capitulation grant is neither offered nor accepted as a *quid pro quo* for service given, but merely stands as an out-of-pocket item, and few men who do their soldiering in New Zealand but are materially poorer for it, and the satisfaction of having given time to qualify for the defence of the country is the only, but sufficient, guerdon for the Volunteer.

The officers in the Force are elective, and in a democratic

country, where so much turns on the man's personal qualifications, a very good sample of officer is obtained.

There is only one drawback from a military standpoint, however, and that is the circumstances which compel the keenest minds to enter and engage in what must always be the first consideration in any part of the world, a struggle for the means of life, and as most of these men are also the chosen officers of their corps, one can easily imagine how one interest vies with the other in its call.

However, it will not always be so, and at present classes of instruction are going on under the direction of the Chief of the General Staff, and quite a number (about 170 officers) can be got together who can give ten successive days to general instruction, field-days, tactical schemes, staff rides, &c., and there are still old officers who have never yet lost sight of the possibility of having an institution on the lines of a West Point Academy in New Zealand.

Camping grounds are in most cases given gratuitously to the corps, and usually on one day (generally Sunday afternoon) are the recognised rendezvous of all who take an interest in the training; these are chiefly composed of the neighbours and relatives of the men in camp.

The friendliness of the inhabitants of localities in which these trainings take place is most marked, and large areas often have stock cleared off them preparatory to manoeuvres, while runholders have more than once found bodies of troops (1,500 and over) in mutton during the camp time.

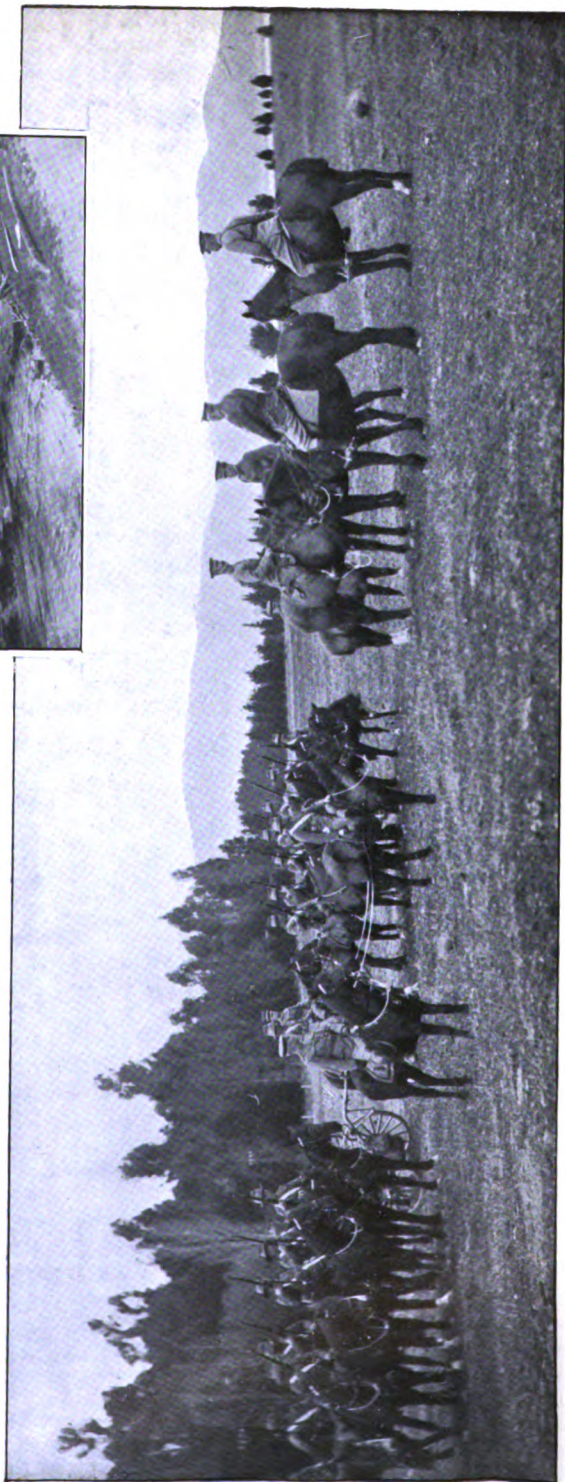
In addition to the training camp, periodical drills are held as opportunity offers. Local conditions autocratically govern these fixtures, which are generally of the squad drill order, mounted and dismounted, instruction in outpost and reconnaissance, while the aim of the instruction is to lose no time of the training week in this elementary work, but to put the precepts into practice.

An ordinary field-day at the training camp begins soon after breakfast, when each man of the opposing sides is made

MOUNTED MEN IN NEW ZEALAND.

Troops leaving for manoeuvres near North Canterbury. The galloping Maxim Gun is the gift of one of the local Members of Parliament, and travels through the most troublous rivers and often above the snow line of the hills.

A single lock bridge, built in six hours by the Manawatu Mounted Rifles, the timbers and spars being freshly cut from the neighbouring forest. Knotting and lashing are part of the instruction of all mounted corps, and with straw-plaiting and other kindred subjects are of the greatest use to the men on their farms.



NEW ZEALAND.



A typical Camping Ground in the native bush, where there is always plenty of wood and water to be found. The mountain in the background is the highest peak in the Kalkoura Range, Marlborough Province, South Island. The geography of the country forms one of the many subjects of instruction, and every local squadron is also thoroughly acquainted with their nearest sea front, and the most direct routes leading to it.

individually acquainted by the simplest 'General' and 'Special Ideas.' A horse-feed is carried in nosebags and men's dinners in haversacks.

These field exercises usually take about four or five hours, and an appreciation is often given before and on the ground and also at the termination of the day's work.

As will be seen, this material to make mounted troops is of a fine description, and in the main the vital points are easily assimilated, but there is a tendency to anticipate the result rather than steadily acquire it by the more methodical path of the drill-book.

The construction of hasty entrenchments and shelters is taught, while at all manœuvres road sketching is a *sine qua non* of the mounted man.

The real rôle which the mounted rifleman in New Zealand is intended to fill is to anticipate and locate any raiding party landing on our coasts, and engage it until the arrival of the less mobile troops.

With this object in view every squadron in New Zealand is made acquainted with its own terrain, especially the sea front and the most direct routes to it.

Perfect efficiency is not yet nearly within grasping distance, but, if there is one common thought permeating the forces, it might be voiced in the sentence, 'it is better to travel hopefully than to arrive, and the true success is to labour.'

TACTICS AND TRAINING OF CAVALRY

1640-1760

BY LIEUT. H. C. MALET, 8TH HUSSARS

At the time that Cromwell came to the fore the military forces of England consisted of: The Standing Army, The Militia, and the Fleet, though the Standing Army was not legally recognised till after the Revolution, 1688.

Material.—At the commencement, of the Civil War there existed splendid raw material: for officers, in the landed gentry; and for men, in the small yeoman farmer, with a sprinkling of veterans from the European wars.

The general maxim of the war appears to have been—
'Where is the enemy? Let us go and fight him.'

Formation.—The Horse formed up six deep, 120 men per troop; at close order, knee to knee; at open order, six feet (a horse's length) between ranks and files. In a mixed force Cavalry were placed in front and rear.

Edgehill shows neither side capable of winning a decisive victory. The Royalist Cavalry defeated its opponents, but were lost in pursuit for the rest of the action. In consequence, the Royalist Infantry was practically defeated by that of the Round-heads. Cromwell realised at this battle that the need of the Parliamentary Army was Cavalry, and set to work to supply it. Hence the formation of the Eastern Association and the Iron-sides.

He was promoted Colonel at this time (January, 1643) and proceeded to raise a regiment of Horse.

Arms and Training.—Cromwell discarded the arquebus, and gave his men cuirasses, swords and pistols; and instructed them in true knee-to-knee shock tactics.

Situation end of January, 1643.—The King's Army at Oxford; Essex in occupation of Windsor; Newcastle in S. Yorkshire; the Eastern Association covering the counties of Essex, Suffolk, Norfolk, Hertfordshire and Cambridgeshire; and Cornwall and Devon in favour of the Royalists.

Grantham, 16th May, 1643.—At a small skirmish near Grantham the Royalist Cavalry received the attack at the halt; Cromwell finally took the initiative, charged at the trot, routed and pursued them. This is the first time he had taken the initiative; he saw the results, and subsequent events prove that he profited by what he saw.

Gainsborough.—For instance, at the battle of Gainsborough, Cromwell having driven some Royalist skirmishers over a small hill, arriving at the summit saw a large body of horse about 200 yards away advancing towards him. Hastily collecting the few men he had (about two troops), he charged at once; enemy completely staggered; his remaining troops formed on reaching the top of the hill, and, charging as soon as formed, completed the rout.

He then turned and fell upon the rear of General Cavendish, who was driving the Lincolners back, with three troops he had held in reserve under Major Whalley, killing Cavendish and routing his men. He also successfully retired his men by successive troops in this action, with a loss of only two men.

Winceby.—At this battle the Roundheads charged home, and a well-timed flank attack by Fairfax completed the victory.

*Marston Moor** may be taken as a fair specimen of the tactics of that period, and is, I think, worth a detailed description.

The King's Army was commanded by Rupert and Newcastle; that of the Parliament by the Earl of Manchester and Cromwell. On July 2, about 6.30 P.M., Cromwell pushed

* For plans of this battle see CAVALRY JOURNAL, April, 1906.

his Cavalry forward across the stream and attacked Rupert, who was unprepared; Rupert rallied and fought for an hour. Cromwell's second line then advanced and, taking Rupert in flank, drove him from the field. Elsewhere the Royalists were victorious. Leslie on the right made a hesitating attack; Goring charged and routed him, following him in hot pursuit, and remaining to plunder, took no further part in the battle. The Infantry fight slightly favoured the Royalists. Cromwell seeing this, sent his second line in pursuit of Rupert, rallied his first line, took the Royalist Infantry in flank, and overthrew them. It was midnight before the battle was over.

Cromwell was appointed to the command of the Cavalry in June, 1645.

Naseby, 14th June, 1645.—This battle was similar in most respects to that of Marston Moor.

Again we have a ragged charge of the Parliamentary Cavalry overthrown by a dashing onslaught of the Cavaliers; again are these Cavaliers lost till the action is too far gone to be retrieved. Cromwell again defeats the opposing Cavalry of his wing, rallies, and comes to the assistance of the sorely pressed Infantry.

DEDUCTIONS.

Training.—This war shows in a very marked degree the superiority of men thoroughly trained and disciplined over equally good, if not better, men lacking in this respect. We see Cromwell able to rally his troops after a successful charge and to charge a second and a third time; further, his charges were not mere herds of mounted men, all galloping in, approximately, the same direction. They were formed bodies, riding knee to knee and following their leader, practically irresistible. The Cavaliers, on the other hand, though fine horsemen and gallant soldiers, having once been 'let loose' could never be rallied. They possessed wonderful dash and pace, but closed ranks were unknown. Their lack of discipline and mode of living (free billets)

caused them to think more of plunder than of returning to finish the battle.

Tactics.—Cromwell first learnt the results of *initiative* at Grantham, and never forgot the lesson. Initiative and the keeping of a reserve, and knowing when to use it, won him the battle of Gainsborough. He also employed there the retirement of troops in succession, with signal success. At Winceby a well-timed flank attack won him the day. At Marston Moor and Naseby the best results were obtained by initiative again—a timely flank attack with his second line, the rallying of his first line, followed by a charge against the Infantry in flank.

Beyond doubt these tactics would have been impossible had it not been for the great efficiency of his troops.

CAVALRY IN MARLBOROUGH'S TIME

There seems to be very little authentic information about Marlborough's use of Cavalry.

Blenheim, August 13, 1704.*—The battle of Blenheim, however, gives us a very fair idea of his Cavalry tactics, as the battle was almost entirely decided by that arm. We find practically the whole of the French Cavalry in the centre of the line, with a stiffening of three brigades of Infantry in the centre of the second line; the Infantry in great force in the village of Blenheim on the right, and in advance of Lutzingen on the left.

Marlborough, observing the formation of the French army, formed his army in four lines: first line Infantry, second and third Cavalry, and fourth, Infantry in reserve.

Sending his Infantry forward to secure the passage of the Nebel while the bridge and fords were made passable, Marlborough directed a strong feint against Blenheim. The Infantry of this force was charged in flank by the French Cavalry. Five squadrons of the allies were sent as reinforcements. These charged and drove the opposing Cavalry back through their

* For plan of this battle see CAVALRY JOURNAL, January, 1907.

Infantry, and were then obliged to retire owing to the Infantry fire. On the right, Prince Eugene was able to hold his own with the Elector's army for some hours.

During this time Marlborough was striving to get his centre securely lodged on the right bank of the Nebel. At one time the Cavalry was driven back and obliged to rally behind the Infantry. The second line of Cavalry then advanced, but was checked in its turn. It was not till 5 P.M. that Marlborough finally had all prepared for the grand attack, both sides having in the meantime interlaced their Cavalry with a small proportion of Infantry.

Marlborough's Cavalry now slowly advanced, that of the French remaining at the halt. The fire was so tremendous that the allied Cavalry fell back about sixty paces. After a short pause the attacking force again advanced; their opponents gave way, the Infantry being cut to pieces. The defeated Cavalry rallied some distance in rear, and made an unsuccessful attempt to retrieve the fortunes of the day.

Marlborough ordered the charge, the immense mass of horsemen poured over the plain, the Frenchmen fired a few shots, turned about, and fled.

The French centre was broken.

The allied Cavalry surrounded Blenheim, containing the greater part of the French Infantry, which surrendered; then rolled up the right of Tallard's remaining Cavalry and attacked the Elector's exposed flank and put him to flight.

Ramillies, May 23, 1706.—A very similar action to that of Blenheim, with the addition of a judicious use of reserves, which decided the day.

Malplaquet, September 11, 1708.—The attack was again made with Cavalry against the enemy's centre, but in this case it was against entrenchments. The Cavalry, penetrating through the gaps between the redans and deploying, drove the enemy back. Strong Infantry supports were brought up, and occupied the trenches, although the Cavalry was driven back almost at once.

DEDUCTIONS

Tactics.—It is very evident that the use of Cavalry, as Cavalry, was not thoroughly understood at this period. We must therefore attribute Marlborough's successes to the equally faulty use of that arm by his opponents.

For instance, at Blenheim, we find both sides interlacing their Cavalry with Infantry, depending chiefly on firearms. Marlborough's first charge, if charge it can be called, must have been made at a foot's pace, to enable the Infantry to keep up. He apparently appreciated the advantages of serried ranks, but almost ignored that of speed. He was also alive to the advantages of using Cavalry in large masses, and bearing down his opponent by sheer weight of numbers.

Marlborough's use of reserves at Ramillies without doubt won the day for him, and his Infantry supports at Malplaquet were indispensable.

Training.—The training of the Cavalry soldier, at this time, seems to have degenerated since the days of Cromwell. More dependence seems to be placed in the firearm than in the charge. The men must have been well in hand, or Marlborough could not have done what he did with them. But on the other hand the slow pace at which all manœuvres were carried out must have made this very much more easy.

There seems no doubt that all Cavalry were trained first as Mounted Infantry, and were very rarely used for shock tactics.

FREDERICK THE GREAT

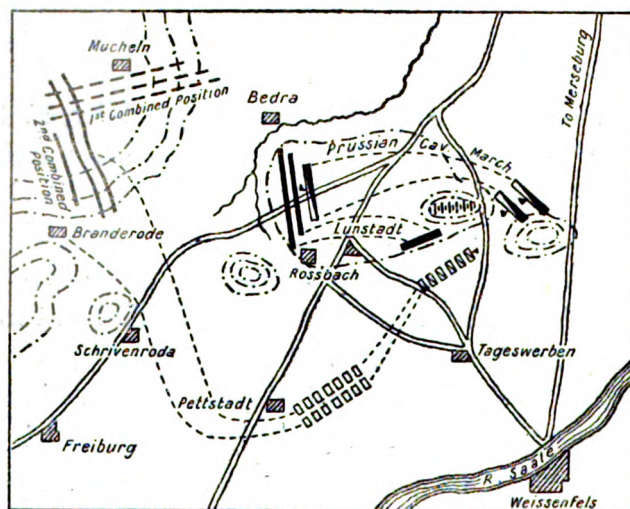
At Frederick's accession he found a highly trained Cavalry, but consisting of big men on big horses, incapable of rapid movement, and fit for no other purpose but that of dragoons. At his first battle, that of Molwitz, he interlaced Infantry with his Cavalry and with success. He soon, however, realised the harm

of this system, and endeavoured to make his mounted men into true Cavalry.

Hohenfriedberg, June 4, 1745.—We see them first in the action of Hohenfriedberg, the success of which was largely attributable to the Cavalry, who seized the initiative and charged over broken ground, upon which the Austrian Cavalry were unable to operate, the latter awaiting the charge at the halt and being overthrown. In the centre, a dragoon regiment charged through a gap in the Prussian line and completely rolled up the wavering Austrian Infantry.

Sohr, September 30, 1745.—Frederick, outflanked, changed front under fire, sending his Cavalry to charge that of the Austrians, which, remaining at the halt, were utterly defeated.

Rosbach, November 5, 1757.—Was won almost entirely by the Cavalry. The allied forces made a movement to turn



Frederick's left flank. Perceiving their intention, he moved his Cavalry behind some hills in their line of advance. The Prussian Cavalry under Seidlitz on their approach attacked them before they had time to deploy. They endeavoured to rally, but were attacked a second time and routed. Bringing up the few Infantry at his command, he routed the allied Infantry before it



ROSSBACH, 1757.

By kind permission of the Artist, Herr Friedrich Gubitz, Stuttgart.

had time to form. The allies' reserve of Cavalry then came forward; the Prussian force again attacked, and drove them off the field. As night was coming on the pursuit was continued next day. The French rear-guard were found holding some gardens. Frederick dismounted his dragoons and drove them out.

Leuthen, December 5, 1757.—Here we have a skilful use of the oblique battle formation crowned with signal success. The Prussian Cavalry of the right wing, supported by four battalions of Infantry, to watch the flank. On the left, Cavalry supporting Infantry and protecting their flank. These, hidden in a hollow, waited till the enemy's Cavalry charged the Infantry and then fell upon their flank and rear.

DEDUCTIONS

Tactics.—The use of fire-arms mounted was prohibited. The charge at full speed, sword in hand, was what Frederick insisted on, and also that his Cavalry should be the first to charge, as at Hohenfriedberg. At Sohr, he charged while the Austrian Cavalry were idly watching his change of front. Again, at Rosbach, he charged before his enemy had even time to deploy; in the pursuit after Rosbach we see that he did not hesitate to use his dragoons dismounted when necessary. At Leuthen, by his oblique formation on the right wing, the Cavalry were saved by the Infantry; and on his left, the Infantry by the Cavalry. In many of the instances quoted above, these tactics would have been impossible, were it not for the high state of efficiency to which Frederick had brought the mounted arm; in fact, he would not have dared to attempt them.

Training.—The training of the mounted branch of Frederick's army was carried out with the utmost care. Each recruit was taught individually, to be both a horseman and a swordsman, before being put in the ranks. Once in the ranks, he was taught that close order and correct alignment, at all paces, was

essential, first in small bodies, as a troop, then a squadron, and so on, up to sixty squadrons in line.

No firing while mounted was allowed, he taught his men to rely on their pace and their swords, and to disregard the enemy's fire. The charge was to be carried out in two lines, small intervals between the squadrons of the first line and an interval equal to squadron frontage between those of the second line. He frequently practised the charge with large bodies without intervals.

COMPARISON

Tactics.—In Cromwell, we find the pioneer of true Cavalry tactics.

1. Individual training and discipline.
2. The training of the men to work in bodies and follow their leader, to ride knee to knee and to rally after the charge ; with him, speed was sacrificed to cohesion.

In Marlborough's day, Cavalry had degenerated into Mounted Infantry, and depended chiefly on firearms. He also committed the fault of putting Infantry with his mounted troops. His charges were usually made at the walk, and speed was ignored. Frederick was the first to grasp the full use of Cavalry—*i.e.* the charge at speed, knee to knee, the horse being the chief weapon, the sword the next, the firearm being discarded for use when mounted.

Training.—Cromwell did all he could, and achieved wonders with the material and opportunities given him.

The training of Marlborough's men was excellent of its kind, but in the wrong direction. It was left to Frederick to show what could be done, and with men not naturally addicted to riding. We must remember, however, that he had a free hand and two exceptional lieutenants in Seidlitz and Ziethen. By careful and incessant training he brought his Cavalry to a pitch of perfection that has never been equalled before or since.

His one failing was in scouting, which cannot be said to have been of the best.

REFLECTIONS ON LIGHT CAVALRY

By MAJOR W. T. WILLCOX, *3rd Hussars*

The necessary attributes of Light Cavalry, and how they may be attained—
How Light Cavalry may be utilised to the greatest advantage—Equipment—
Personnel—Training.

LIGHT Cavalry, Heavies. What's in a name ! More, possibly, than at first sight appears. Consider the word Light as applied to the soldier. It recalls the glories of the Light Division of Peninsular days, the ride at Balaclava, and while our thoughts dwell upon the word we are reminded that though Light Infantry is now practically only with us in name, Light Cavalry under modern conditions of warfare may have a greater future in front of it than ever it had in the past. Why ? Because the word in a military sense implies mobility.

Mobility, however, is not everything. The mounted forces of the Confederate army in Virginia under such dashing horsemen as Ashby and Stuart were, without doubt, as mobile and as light as can be conceived. Our late enemies the Boers were all that could be desired in the way of mobility, so were many of our mounted volunteers in the same war ; but can these be termed Light Cavalry ?

Given that men can ride and shoot, individuals can, under good officers, be formed into very useful bodies of mounted troops in a comparatively short space of time, as in the case of the horsemen quoted, the majority of whom were trained in the school of war itself ; but it takes years to make a finished Cavalryman.

It is the combination of the professional soldier thoroughly trained in the art of war, in discipline, and organised in permanent regiments and corps, having all the mobility of the irregular horseman, that produces Light Cavalry.

The chief characteristics of Light Cavalry are mobility, quickness in manœuvre, to counterbalance the heavier weight of a slower-moving opponent in the charge; expert use of the rifle; the covering of long distances; and, as the eyes and ears of an army, bold and intelligent scouting. Such being the case it follows that Light Cavalry should be boldly used, otherwise its value is apt to be lost; also, it is well to bear in mind that, though expert in the use of the rifle and fully able to act as Mounted Infantry, such work is but one of its many useful qualities. A highly trained individual such as our Light Cavalryman finds his legitimate work in the front and flanks of an army.

In an essay entitled 'Lessons to be learned by Regimental Officers from the Russo-Japanese War' appearing in the R.U.S.I. Journal of July last, a distinguished French officer is quoted as assigning to Cavalry as its proper rôle during the course of a modern battle the duties of a mobile reserve of riflemen. He considered the Japanese Cavalry to have played such a rôle at Mukden, and the Russians to have signally failed in doing so.

Certainly, should the necessity arise, make use of Cavalry in such a manner; but possibly there may be other important work for the Cavalry to do, during and after even a modern battle, which no mounted troops but trained Cavalry can successfully carry out, and taking into consideration the special training required for the arm, surely such duties are its proper rôle. It may be asked what rôle was played by the Cavalry of either side in the pursuit and retreat from Mukden?

In a paragraph in the same article summarising some of the lessons to be learned, we read: 'Cavalry should be regarded as mobile Infantry, and should be armed with Infantry rifles and

bayonets. The lance should disappear, to be replaced by the sword; and, at once and for ever abandoning their mounted attack, save when in pursuit of a beaten foe, they should learn to fight effectively on foot.' Here we have the idea of regarding the Cavalry of the future as mobile Infantry, and to carry it out it can only suggest the necessity of a large increase in the strength of our Cavalry regiments, for it must be borne in mind how few rifles can be dismounted after allowing for horse-holders and a mounted escort for the led horses. With numbers as they are now it is only in exceptional and minor situations, such as they are prepared for, that dismounted Cavalry can be of great account.

A long consideration of the time-honoured question of Cavalry versus mounted, or mobile, Infantry cannot be gone into; but we may be allowed to raise the question whether abandoning the mounted attack would not result in abandoning Cavalry, with the consequent impossibility of pursuing a beaten foe with any very useful result. The charge and the pursuit are equally difficult operations, and it is open to doubt whether either can be really acquired by men who are not trained in every way to look upon the horse as their principal weapon, and not merely as a means of locomotion.

Something more than rifles and guns is required to carry a pursuit to its bitter end. Want of Cavalry by Japan in Manchuria, and the consequent inability to reap the fruits of Mukden by a vigorous pursuit, permitted the retirement of the Russians and lost our present allies their indemnity.

Was it not a brigade of British Cavalry which acted as Sir George White's mobile reserve in Ladysmith, the regiments of which fought dismounted on Wagon Hill and did strenuous service in repelling that great attack on January 6, 1900? The training of our Cavalry for some years past should certainly fit it to fight effectively on foot when necessary, whether in the re-enforcing of a hard-pressed post or the filling of a gap in the battle line.

Finally, we can no more reconcile ourselves to the idea that horsemen, whose main form of attack is a bayonet one on foot, are Cavalry than we can agree with that beau sabreur 'Etienne Gérard' when he remarks of 'that most helpless, most ungainly of creatures, a dismounted Hussar.' Further, we are almost tempted to ask, Where are the Infantry ?

In regard to the training of the light bob, horsemanship and horsemastership under every possible circumstance are of course everything. The expert use of the sword is necessary to a Cavalry soldier, and the lance might well be included in the training of the Hussar. The British Army is constantly engaged in operations against natives, and the fact that the lance is a more useful weapon than the sword against such-like foes should not be lost sight of. The best of rifle-shooting is necessary, and more in the nature of field-firing and shooting at unknown distances should be encouraged. Thorough training in reconnaissance, scouting, reporting, destruction of railways, telegraphs etc. and night work is required of the light horseman, and his intelligence is an important matter, not to mention his powers of observation. Riding by night is an art which must be acquired by the Cavalry soldier, and it can only come with practice.

In regard to the scouts the ability to make elaborately drawn sketches is scarcely required. Much time is sometimes taken up with teaching them to construct sketches which in practice would fall on the officer to execute. For one man who after all the teaching can produce an accurate and reliable sketch how many men are there in a squadron who are able to make an intelligent copy from a map of the route they may be ordered to follow ? How useful if every man in a squadron should be taught more scouting and the education of a selected few possibly carried further !

The use of maps can be overdone. Maps are scarce in war, but in peace we cannot do without them ! All men should be able to read a map ; it is not a difficult art, and to the soldier in

the ranks more useful than being able to make one. We want to send a man on a message, we show him his way on the map, he can carry it in his head, and thereby becomes a useful man.

Some knowledge of woodcraft, too, is useful to a scout, for a study of the habits of wild animals is instructive. Tracking also is a most useful accomplishment, but dangerous if but imperfectly understood.

To prepare a young soldier for the study of all these requirements, every man should attend school until he has arrived at a certain standard, but let such school training be made as little irksome as possible.

Steadiness and quickness in drill and manœuvre are essential in Light Cavalry, which has a lot to make up for want of weight in the Cavalry combat. That the horses must be well trained reads as a truism, yet there is a tendency among some of us to limit the riding school work. The value of the endless bending, turning, and halting in the *manège* must not be lost sight of, it is as necessary for chargers and troop horses as it is for polo ponies. Let us imagine the picture of a squadron of well-trained hunters manœuvring against one of well-trained school horses. The faster the pace the more likely is the school squadron to out-manœuvre the hunter squadron. For the same reason, what a mistake to hurry the young soldier through the riding school! A man and a horse must learn to walk before they can gallop in a squadron, and a half-trained squadron is more of a danger to friend than to foe.

Sword and rifle are the arms for Light Cavalry. The sword must be carried in a leather scabbard. The method of carrying the rifle is open to question whether on the horse or on the man, the object to be attained being the least possible amount of inconvenience to the rider. The shoulder bandolier is excellent, but the same can scarcely be said of that round the waist, with its tiring drag on the hips. A larger percentage of really good field-glasses might be allowed, and more wire-cutters in a squadron would be of use.

We all know how uncomfortable the present troop saddle is with its high cantle, short seat, and straight cut flaps. These defects might be remedied. A pair of wallets would be useful, not to be stuffed with a number of unnecessary and heavy articles but in which could be carried the emergency ration, the field dressing, and a message book, so leaving the haversack and pockets free for the day's food, extra ammunition, map, compass, etc. The rear pack might consist of a long warm khaki coat only, which would require no very high cantle to the saddle. A picketing peg strapped on to the scabbard or rifle bucket, headrope carried as now, the horse's feeds in two small nosebags one on each side of the saddle, a horse blanket that can be secured on the horse at night can be carried under the saddle, a water bottle, and the light horseman is ready for any duty on which Fortune may call him. A light but strong two-wheeled pair horse cart would be useful to a squadron, to carry picketing gear, heel ropes and pegs, and any articles which would otherwise burden the horse.

In regard to personnel, we want light and wiry men but not weaklings, for it takes a strong man to ride a horse in the ranks of a squadron. Intelligence is not unnecessary.

Men often after joining a Cavalry regiment find that they do not like the work. It might be made an easier matter for such men to transfer to other branches of the Army, for an indifferent Cavalry soldier whose heart is not in his work is worse than useless.

Regarding the mounting of our regiments, the British Cavalry is mainly medium and light, heavies being much in the minority. There is a difference between the men of the medium and Light Cavalry, but their horses do not differ to the same extent. We should be inclined to advocate a yet smaller horse for the Hussar were it not that the light bob might find himself mounted on a cob in every way unsuitable for Cavalry work.

THE PROGRESS OF THE LANCE

By B. E. SARGEAUNT, *Assistant Curator Royal United
Service Museum*

Distinction between the lance and spear—Early use of the lance—Length and weight of the lance.

THE weapons of offence in the days before the introduction of fire-arms were of three kinds, firstly, those for cutting, secondly, those for stabbing or piercing, and thirdly, those for stunning; to the second of these three classes would belong the lance, and it has always been the most prominent of the weapons for stabbing. (I naturally do not include the sword in the stabbing class, although it was at different periods used alike for stabbing and cutting, but its original purpose was unquestionably the latter.*)

To what extent distinction may be drawn between the lance and the spear is difficult to determine. It would seem that the lance was at all times essentially a weapon for thrusting, while the spear was one for either thrusting or hurling: also during modern times the lance would appear to have been almost always fitted with a shoe, while the spear was not. In the past the lance, spear, and pike † seem to have been constantly confused, and the German term for a lance ‡ was actually 'Speer.' In ancient

* *Vide* 'The Development of the Sword,' by B. E. Sargeaunt, *Cavalry Journal*, July 1906.

† The pike was a weapon used only on foot. It was introduced into France by the Switzers in the reign of Louis XI., and was soon afterwards largely used by other European armies.

‡ The modern military term is of course 'Lanze.'

French these three weapons were all known by the one word 'bois.' In early English, spears and lances, especially those of mounted men, are not infrequently collected under the name 'staves.'

The origin of the lance * seems to have been a pole sharpened at one end, or perhaps at both, and with the advance of civilisation



THE ROMAN 'JACULUM
CUM AMENTO' FOR
THROWING

the point was made of different hard materials according to the period of civilisation, at first of flint, and later of bronze, iron, and steel. The very earliest times saw the lance in use, and it was quite common amongst the Assyrians and Egyptians. In his work 'The Armament of Cavalry,' published at Allahabad in 1875, Lieutenant G. H. Elliott says: 'Pliny attributes to Etolus, son of Mars, the invention of the lance, which he called "jaculum cum amento," but this would appear to be a mistake, for the "jaculum cum amento" was a javelin, or species of dart, used for throwing only, and was carried in addition to the lance; the "amentum" being a strap attached to the centre of the javelin to facilitate the throwing. It seems to have been fitted to all kinds of throwing spears, and according to Polybius the "hasta velitaris" of his day was three feet long. The shaft was slender and tapered so as to bend after striking.'

It appears to be certain that the lance in use by the Greeks about the year 1000 B.C. was from eleven to fifteen feet in length, with a long, broad-pointed head of bronze, fitted with a cross-piece. At this time it was used for thrusting, and the warriors of the day also possessed a light javelin for throwing. It must be borne in mind that at the commencement of their power the

* Lances and spears seem to have been the most favoured weapons amongst uncivilised races and tribes. They have been found in all shapes and forms.

Greeks possessed no cavalry at all; they commenced to enrol horsemen in about the year 400 B.C.

Evidence exists that in the year 202 B.C. the Romans made their lance-heads * of iron and steel instead of bronze, and the superiority of the Roman weapons over the bronze-pointed arms of the Gauls was very marked.

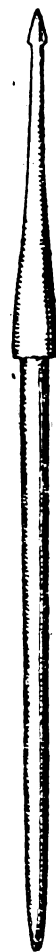
The Romans divided their army into three distinct branches, each having a special function of its own. They consisted of (1) the Cavalry, (2) 'Velites' (skirmishers), and (3) 'Hastarii' (spearmen). The men of the third class were armed with a long lance, a small dart or javelin for throwing, and a sword which was worn, after the Greek fashion, on the right side.

No regulation size for the lance seems to have existed amongst the Greeks, the Romans, or even amongst the horsemen of the Middle Ages. Every man had his lance made to suit his strength and his stature, for the weight of a long lance was very considerable, it being generally made of ash; in fact, among the Romans ash seems to have been almost universally employed, and writers in verse actually use the word 'fraxinus' (ash) to indicate the lance † itself.

From the eighth to the thirteenth centuries

* Polybius gives the length of the pilum as six and a half feet, of which the iron head was one-third and the shaft two-thirds; but the tang went half-way up the shaft, so that there were three parts of equal length—head, head in shaft, and shaft. The weight of the pilum varied from about one and a half pounds to three pounds.

† The word 'lance' is unquestionably derived from the barbarous Latin 'lancea.' Hirtius, the author of the eighth book of Cæsar's 'Commentaries of the Wars with the Gauls,' says: 'Lancea infesta medium femur transjicit.'



THE ROMAN 'PILUM.'
LENGTH 6½ FEET.
WEIGHT ABOUT 2½
POUNDS

after Christ the lance seems to have undergone no change. It was a long heavy weapon used both by horsemen and by foot-soldiers. It was customary for the Norman horsemen when charging to place the butt of the lance against the arçon or bow of the saddle.

The ash lance of the Normans was of considerable weight and generally about twelve feet long; the metal head was fixed to the staff by a socket. Pennons were sometimes used by them, and it is interesting to record that during the tenth and eleventh centuries they were attached to the lance below the socket of the lance-head. With the Normans the lance and the sword were the marks of 'free men.'

At the end of the twelfth century the lance used at the tournaments became very heavy, the shaft being so thick that it was necessary to hollow it to form a place small enough for the hand to grip it. The armour of necessity became heavier too in order to meet the tremendous blows from the lances. The mounted men attached the end of the lance to the cuirass, both to remove some of the strain from the arm and also to obtain a truer aim. Sometimes the mounted men would fight dismounted, when it was customary to cut off a portion of the shaft of the lance to render it lighter.

The tournaments were regarded as the best means of training both the horse and man, and they were conducted on very extensive lines; for instance, at Liège in 1148 one was held at which there took part fourteen princes and dukes, ninety-one counts, eighty-four barons, one hundred and thirty-three knights, and three hundred nobles. It was quite a frequent occurrence that forty persons were killed in these tournaments during one passage-at-arms, and it is known that more honours and decorations were conferred at them than for service and valour in actual warfare.

At this period lances were also used by Infantry to defend themselves from Cavalry; in such cases the butt of the lance was fixed in the ground and the point was placed level with the horse's breast.

The Hobilers of the sixteenth century with their demi-lances were the light Cavalry of the period. Their ranks were generally composed of the squires who attended the knights and men-at-arms. Their chief duties were scouting, foraging, and guarding the camp; on an attack they were expected to hold the enemy at bay until the heavily armed knights were ready equipped for the fray. The demi-lance was so called from the fact that it was necessary to hold it half-way down its entire length; it was a very long slender weapon, considerably longer than the heavy lance of the date.

The 'Swedish Feather' of the early part of the seventeenth century was a weapon of the partizan type, and was different from the 'Swine's Feather.' Scott in the 'Legend of Montrose' says: 'I was often obliged to run my head against my old acquaintances the "Swedish Feathers," whilk your honour must conceive to be double-pointed stakes, shod with iron at each end, and planted before the squad of pikes to prevent an onfall of the Cavalry.'

The lance of modern Cavalry seems to have originated with the French. Napoleon formed a Regiment of Polish Lancers in 1807, and Lancers did good service both in the Peninsula and at Waterloo. Lancer Regiments in the British Service date from 1816. The first regiment, raised in that year, owed its origin to the high opinion formed of the lance in the exploits of the enemy's Cavalry at Waterloo and elsewhere.

On the formation of Lancer Regiments the Lances were made of ash,* and they were in use until 1877, when they were superseded by the bamboo. The difficulty presented in selecting suitable bamboos for shafts is very considerable; on no account can they be cut to fit the steel sockets of the point and butt, as can be done in the case of the ash shaft: directly the bark of the bamboo is interfered with the interior is liable to perish. It is,

* At the present time some ash shafts are to be found in the Service, which points to the increasing difficulty found in procuring bamboos.

Lances of ash, lancewood, and other woods were issued to certain Regiments in 1884 for experimental purposes; they were found to be considerably lighter than the bamboo, but broke and splintered on the slightest strain.

therefore, necessary to find bamboos of such size as will fit exactly the two steel sockets. For this reason, and also on account of diseases existing in the cane which can only be detected by experts (for the bark may appear to be quite sound), it is usually found necessary to discard eleven-twelfths of the bamboos sent for approval.

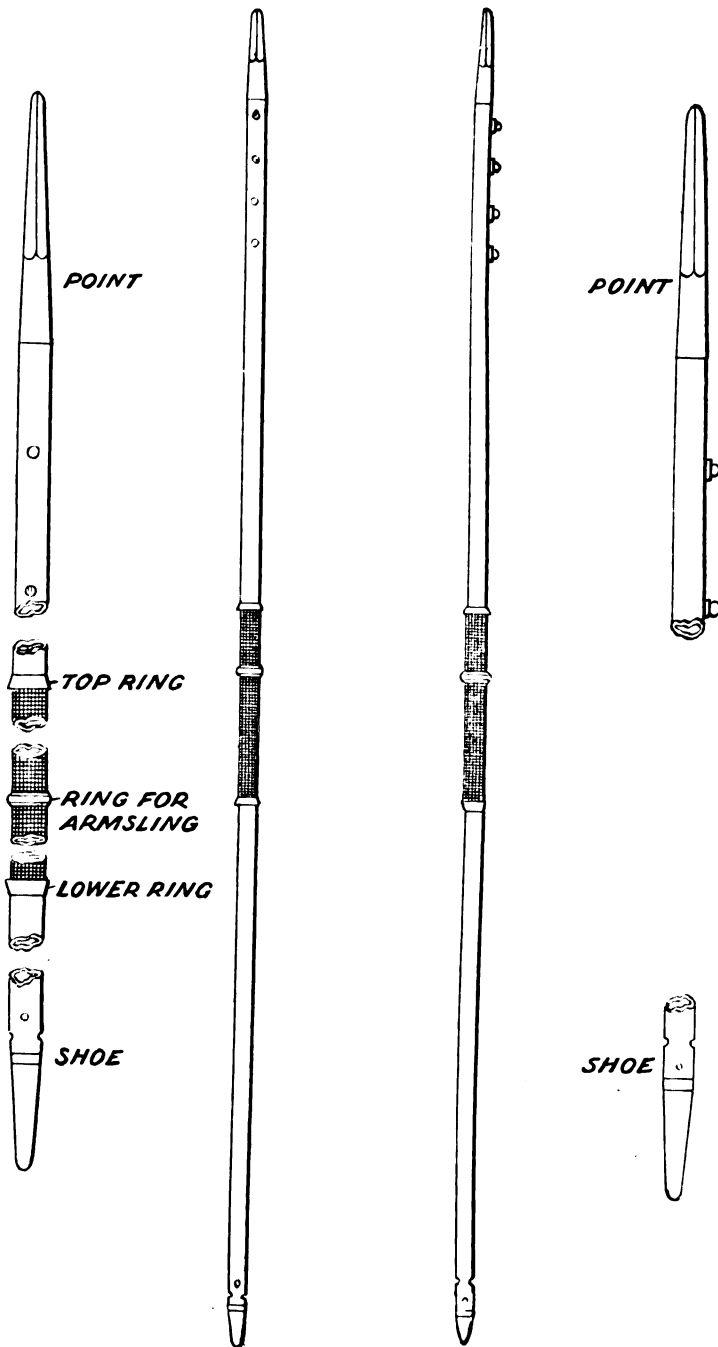
A modern bamboo lance would seem to be at its best during the first six years of its existence, after this time it gradually commences to deteriorate, and after twelve years * it is apt to become too dry, stiff, and withered to be fit for hard service. The influences of climate and temperature go a long way towards assisting its decay, and the bamboo would have a considerably longer life in England than it would in a dry climate like India for instance. In selecting bamboos not only does weight have to be considered, but the entire cane must be very carefully examined to see that no insect is present under the bark eating away the interior. It is quite possible to have a shaft of excellent outward appearance, but, on cutting, it would be found to be infested with small insects, only found in cane, which eat away the interior and render the bamboo of little use.

In 1895 some lances were issued weighing considerably over five pounds; they were found to be too heavy, and it appears they were only issued as the result of a fire at one of the factories in which many thousands of shafts were destroyed. The British lance of to-day weighs on the average about three pounds fourteen ounces, and is nine feet in length.

The present German lance is made of hollow steel with a quadrilateral point and iron shoe. Its weight is nearly four and a half pounds, and it is just over ten feet in length. Pennons are carried on the lances according to the nationality of the regiment; for example, Prussian regiments carry white and black as their colours, Hessian white and red, and Bavarian white and blue.

* This is the official average life of a lance, though sometimes it may last for many years more, provided it does not meet with a wound.

THE GERMAN HOLLOW STEEL LANCE, 1908.



Length over ten feet. Weight nearly four-and-a-half pounds.



LANCES.

1. Malay lance with steel shoe. Length, 6 feet 3 inches ; weight, 1 lb. 3 ozs.
2. Indian steel lance, engraved throughout and four-sided towards the point. Length, 6 feet 8 inches ; weight, 5 lbs. 4 ozs.
3. Irish pike used at the battle of Vinegar Hill, June 21, 1798, during the Irish rebellion. Length, 7 feet 2 inches ; weight, 2 lbs. 12 ozs. The pike was a weapon used only on foot. It was merely the lance of the Cavalry adapted to Infantry. Morris pikes were copied from the Moors, and were very long. They were used during the reigns of Henry VIII. and Elizabeth. The shafts were covered with small nails for protection.
4. Combined lance and blow-pipe, Malay. Length, 7 feet 10 inches ; weight, 3 lbs. 3 ozs.
As a rule the bore of the blow-pipe, both from Malay and South America, does not exceed a quarter of an inch in diameter. Through it are blown poisoned arrows, made of split cane, from a foot to fifteen inches in length, wound at the butt with fibrous material so as to exactly fit the bore of the blow-pipe.
5. Indian lance painted. Length, 8 feet 9 inches ; weight, 3 lbs. 5 ozs.
6. British lance, shaft of ash, date about 1820. Length, 9 feet 1 inch ; weight, 4 lbs. 4 ozs.
7. Sergeant's partizan, 1780. Length, 9 feet 2 inches ; weight, 5 lbs. 8 ozs.
8. Wooden spear or lance with numerous wooden barbs, Fiji Islands. Length, 9 feet 3 inches ; weight, 2 lbs. 12 ozs.
Wooden barbed spears were the principal weapons of many of the islands of Melanesia, and were also extensively used by the natives of Australia, where the wooden barbs were usually lashed to the shaft with hair. These spears were used for hunting and fishing as well as being weapons of war.
9. Heavy tilting lance of the sixteenth century. Length, 10 feet 6 inches ; weight, 5 lbs. 8 ozs. The tilting lance differed from a war lance in that it possessed a coronal instead of a point. The coronal consisted of four or five small points for gripping the armour, but they were not intended to penetrate.
10. Indian lance painted. Length, 11 feet 8 inches ; weight, 3 lbs. 12 ozs.
11. Long Indian lance, painted throughout, with a cluster of silk below the socket. Length, 12 feet ; weight, 3 lbs. 4 ozs.
12. Cossack lance used in the Crimea in 1854. Length, 10 feet 9 inches ; weight, 3 lbs. 12 ozs.
13. A wooden spear or lance from Kingsmill Islands. For 4 feet from the point it is edged with six rows of sharks' teeth ; most of the weapons of the Kingsmill Group are edged in this way. Length, 9 feet 8 inches ; weight, 4 lbs. 2 ozs.
14. A lance of bamboo carried in the charge of the 21st Lancers at Omdurman on September 2, 1898. Length, 9 feet ; weight, 4 lbs. 12 ozs.
15. A French lance of ash, 1815. Length, 9 feet 1 inch ; weight, 5 lbs. 6 ozs.
16. A boarding pike of the early part of the nineteenth century. Length, 8 feet 1 inch ; weight, 4 lbs. 11 ozs. Some boarding pikes measured as much as 20 feet in length.
17. Ceylon lance painted throughout. Length, 7 feet ; weight, 2 lbs.
18. Malay lance with a cluster of hair below the socket. The shaft is grooved with rings. Length, 6 feet 11 inches ; weight, 2 lbs. 12 ozs.

THE USE OF THE HORSE SOLDIER IN THE TWENTIETH CENTURY

Summary of a lecture delivered by Captain C. W. Battine, late 15th Hussars,
at the Royal United Service Institution.

RÔLE OF CAVALRY

ALTHOUGH the century is still in its infancy, yet two great wars have already thrown their light on military science.

Is Cavalry an anachronism, or is its rôle more important than ever?

Both opinions are put forward.

The side which has the greatest mobility wins, unless otherwise inferior; this mobility is obtained in a large measure by Cavalry superiority.

NAPOLÉON'S DOCTRINE

The doctrine which I venture to put forward is, that the field of battle is the arena wherein Cavalry can and should exert its power.

It should, as Napoleon laid down, intervene *before, during, and after* the decisive collision.

Cavalry should deliver the knock-down blow.

But without its co-operation the manœuvres are impossible which bring about battle under favourable terms, and in its absence there can be no destructive pursuit.

The destructive power of Cavalry armies: viz. Huns, Normans, Cossacks, Tartars, and the results of a combination of

Cavalry with other arms ; Gustavus Adolphus and his Swedes, the Prussians under Frederick, and Napoleon's armies.

THE DESTRUCTIVE POWER OF CAVALRY

To carry out its mission it must exert destructive power.

Its fire must be constantly available. Its deadly charge must be a perpetual menace to the hostile forces.

The history of war proves that the power for harm of Cavalry depends, not on armament, but on the skill and courage of its horsemen, the condition of its horses, and chiefly on the talents of its leaders.

Battles quoted in support : Bannockburn, Jena, Lucknow, Gettysburg, Sadowa, Gravelotte, and Mukden.

Some characteristics of the modern battlefield, which give opportunities to Cavalry are : Duration of the struggle which exhausts the physical strength and ammunition of Infantry. Vast area which prevents timely reinforcement except by Cavalry.

The long and precarious communications. The sensitive flanks.

Tendency for great gaps to arise in a long line of battle, giving opportunities for Cavalry to penetrate, and to operate against flank or rear of hostile units.

The difficulty of withdrawing Infantry and Artillery when once engaged, owing to increased range of guns and rifles.

The uncertainty which prevails as to the course events are taking, and the consequent importance of acting suddenly and by surprise.

The immense prize to be reaped by pursuit when victory is achieved.

Picture the development of a modern battle.

DIVIDING LINE BETWEEN INFANTRY AND CAVALRY.

The characteristics of Infantry and Cavalry action on the battlefield.

Infantry fight slowly, can entrench and cling to ground ; the volume of fire is more formidable ; exhausted men can be replaced from its superior effective ; it can stay better, and has defensive power.

Cavalry can snatch and surprise ; can constantly open a fight and withdraw from it ; can choose and change its point of attack ; can bring its men fresher and with more cartridges, if in smaller numbers.

Its shock is more formidable. It can alternate and combine fire with shock. For which high training is required, however.

Can Cavalry be trained to work with equal skill on foot in a fire-action, and on horseback by shock ? Many Continental authorities say the time available for the instruction of the Cavalry soldier is too short for the double rôle.

American soldiers, however, both in North and South, managed to learn both in an even shorter period of training.

The Englishman is easier to train as a horse soldier than the Continental, by reason of his long, clean limbs and innate love of riding.

Marlborough's Cavalry learnt the double rôle, and so must we to-day.

Cavalry shock tactics are susceptible of great improvement, and all methods of war must be improved as time goes on ; everything is more difficult.

Surprise is *the* weapon.

Use of it in intimate combination with other arms the secret of Napoleon's crushing victories.

A great leader of Cavalry is as hard to find as a Shakespeare or a Velasquez.

Great strategists are far more plentiful ; but a great Cavalry leader is of the utmost value in deciding the fate of a campaign.

HORSE SUPPLY OF THE NATION

The President of the Board of Agriculture has repeatedly warned us of the risk we continue to run.

He must convince his colleagues of it.

The cost of horses in the Boer War a startling argument.

We are no better organised in this respect than in 1899. The best horses are going out of the country.

Sir E. Locke Elliot has stated that eight years' energetic work is required to make any appreciable difference to our horse supply ; therefore, the sooner we begin the better.

Government must help with money. The economy will be great in the long run.

The importance of this question cannot be exaggerated.

CONCLUSION

The *moral* of the soldier in action is of supreme importance, and is greatly affected by fatigue. The fact that the horse soldier is saved much fatigue enables him to do his best, and gives him a great advantage over the foot soldier.

The practical utility of chivalrous qualities were exemplified by the victorious Japanese.

After the fall of Napoleon, war was unduly decried.

Peace has its victories ; it has also its losses and disasters. The drinking-shops, poverty-stricken inhabitants, and disgraceful slums of all our big centres of population testify to the fact.

Remembering how difficult it is in peace to preserve an army from the rust of inefficiency, and how much of national life and national character is reflected in the army when it stands in line of battle, it is, perhaps, just and right that the nations which can prevail in war shall, in the future as in the past, surpass their competitors in the struggle for racial supremacy.

Sir Charles Dilke, who presided, paid an eloquent tribute to the memory of the late Lord Chesham. He agreed in the main

with the lecturer, and he insisted on the immense value of Cavalry properly handled. Bad Cavalry or Mounted Infantry would be at the mercy of highly trained horsemen under energetic leaders. So also the events of recent war had made it clear how complete the exhaustion of physical and moral power becomes among Infantry which has been exposed to several hours' severe fighting. At the right moment a small force of Cavalry might cut their way through a great army.

He agreed, too, with Captain Battine as to the extreme urgency of the question of our national horse supply. According to the latest returns, we had in the United Kingdom only 6,780 Cavalry horses, exclusive of the 796 of the Household Cavalry, while South Africa and Egypt could supply only 2,500 more. As a considerable proportion of these animals were not of an age to take the field, we could not even send 10,000 Cavalry with our expeditionary force at short notice. In marked contrast, France could put 67,000 horse soldiers with 70,000 horses in line, without using the horse conscription. This was exclusive of horses under age. Germany was increasing her Cavalry, and could mobilise an even larger mounted force than France, whereas in a sudden emergency he feared that half the British Cavalry, however well trained, would have to take the field on foot, or not at all, for lack of horses. He rejoiced that something like uniform doctrine now prevailed among us as to the proper use of Cavalry, and congratulated the Secretary of the Institution, and the CAVALRY JOURNAL, for their share in bringing it about.

DISMOUNTED ACTION OF CAVALRY: IN TRAINING AND IN THE FIELD

(TRANSLATED FROM THE *Kavalleristische Monatshefte*)

Discusses the various opinions on the use of Cavalry in the present, the false lessons derived in some quarters from recent campaigns—The real lessons which show that it is more valuable than ever before, during, and after the battle—Extracts from German Cavalry Drill-book—Necessary qualities for pursuing its true tactical rôle.

‘LANCE or Sword!’ ‘Mounted Riflemen!’ The following are the catchwords in the present conflict of opinions as to the proper employment in war of Cavalry. The one party refuse to admit that dismounted action has now acquired a greater importance than formerly, and strenuously deny that it must be resorted to if Cavalry is to keep up to the same level as the other arms. The true reason for this point of view is the dread of seeing dismounted training assume too large proportions to the detriment of mounted action, without which, as the adversaries of the former method believe, a Cavalry fight can never give serious results. The latter merely regard fire action as an expedient, to be only assumed as a final resort, and even look on it as lowering to the dignity of the Cavalry arm, whose true and proper spirit suffers as soon as it enters the paths which they consider as opposed to the nature of that arm.

THE ANTI-CAVALRY SPIRIT

The contrary opinion is equally clear and explicit. It is known that there exists a strong current of opinion—of course outside the Cavalry itself—which excludes Cavalry from the

battlefield and would confine it entirely to exploration. The champions of this party maintain that all Cavalry attacks against even shaken Infantry must infallibly fail on account of the efficacy and rapidity of modern rifle fire, even if the Cavalry had been able to charge, with more or less loss, through the open and not very vulnerable line of skirmishers. Its chances of success against Artillery are not considered much better, because the quick-firing guns will launch a regular hail of shrapnel bullets, which at close ranges would absolutely destroy all, and if by chance a few individual horsemen escaped this hurricane of lead they would charge through the line of armoured guns without being able to inflict the least punishment on the gunners. In short, the protagonists of this school consider great Cavalry charges as useless and objectless. Other persons who hold similar opinions, although they do not openly ventilate them with equal vehemence, look on modern Cavalry as merely a Mounted Infantry which is able to move quickly to that spot where its fire can be most usefully employed.

LESSONS FROM RECENT CAMPAIGNS

The supposed lessons of the South African War and of the gigantic conflict which took place in Manchuria have led to the belief, in certain quarters, that the time for Cavalry is over, and that this arm, as an arm, belongs to the past. What, however, are the lessons to be drawn from these two campaigns by the Cavalry? It learns above all that it has not become superfluous, that it has not retrograded, and that it cannot be banished from the theatre of war. It remains, as before, to use an old, well-worn, but most true expression, the eyes of the army. If its reconnaissance is properly conducted the Commander-in-Chief is thoroughly informed in ample time of what is taking place with the enemy, so that he may draw correct conclusions on the situation, and take the necessary action for launching his masses for their destruction. Success will come to that commander who can see most clearly into the enemy's intentions. Thus, as

may be seen, the commander requires some basis in order to correctly appreciate what is going on with the enemy, and this basis can only be furnished to him by a strong, well-led, and thoroughly efficient Cavalry. This is certain, and will remain a fact as long as there are wars. Cavalry drives off the hostile Cavalry, and thus opens the way for its scouting units, giving itself at the same time a free road and an open outlook.

DURING THE FIGHT

But its mission has a far wider extension—it reaches to the battlefield itself. Much is talked nowadays of ‘the void of the battlefield,’ that phenomenon due to the careful utilisation of ground by Infantry and Artillery, as much in the attack as in the defence. But the greater the care taken by these arms to conceal themselves from the view and the bullets of the enemy, the greater becomes the necessity for tactical scouting by Cavalry ; and by tactical scouting we mean local scouting, and scouting during an action, which should be carried out in the various sections both before and during the battle, which should extend round the enemy’s flanks, and which should never for a moment lose close touch with him. To this must be added the necessity for protecting one’s own flanks on the field of battle, for driving back the enemy’s scouting detachments, and for the timely discovery of enveloping movements and hostile counter-attacks ; in short, Cavalry should operate in intimate and constant combination with its sister arms ; it should intervene actively in the action itself, either by charging, if there are no other means for achieving the result, or else by its fire action, reinforcing the latter either by the fire of its Horse Artillery batteries or by that of the machine-guns attached to it.

AFTER THE FIGHT

After the battle modern Cavalry can still achieve its best successes. On the spot at the right time, with lightning-like

rapidity of movement, resolute, independent and bold, Cavalry, when possible in conjunction with Artillery and machine-guns, will always be ready for the pursuit. The weighty words of the German Cavalry Drill Regulations have lost nothing of their importance and correctness ; on the contrary, they have acquired an even greater weight on account of the conditions of the modern fight ; they are as follows :

‘The commander of every Cavalry unit, even if that unit is only temporarily independent, should, on his own personal responsibility, take all measures necessary to locate the halting place of the retreating enemy and to stick close to him.

‘More efficacious than following on the heels of a retreating enemy is to get the start of him and to attack him in flank, aided by the Artillery, either with the *arme blanche*, or with rifle fire, so as to cut off his retreat, and cause annoyance to his transport and supply columns.

‘Such a pursuit must be pushed without rest day and night by the whole of the Cavalry, regardless of consideration for individual troops, and even with jaded horses.

‘Every mounted man of a victorious army must strive to overtake the retreating enemy, and every troop-commander must support that endeavour. After a victory the main body of an army can manage without Cavalry ; but a remorseless pursuit pushed to its extreme limit will save that army from a fresh battle, and may sometimes put an end to the whole campaign.

‘A pursuit, then, at all costs is the more incumbent on Cavalry, as the difficulties presented by the reality (fatigue, exhaustion of one’s own troops, and the dispersion of the enemy) cannot be reproduced at peace manœuvres.’

One must clearly realise that the modern Infantry action, which sometimes lasts for days and nights, weakening all bonds, using up all energy, and shattering the nerves, will throw the ranks of the vanquished into the greatest disorder, whilst the victorious Infantry will be exhausted, and not be in a fit state to continue the action, or even the movement. The action of the

Cavalry will be all the more decisive and the richer in results, and its chances of success will lie, above all, in the rapidity of its movements and the energy of its action. Pushing forward independently, it will attack and shatter the hostile Cavalry, and thus open the way towards the enemy's line of retreat. At a favourable spot, preferably on the enemy's flank, it will deploy a line of skirmishers, and pour a hot rifle fire into the enemy's retreating columns, being powerfully assisted by its Horse Artillery and its machine-guns. Should the enemy still show himself sufficiently strong to render success doubtful at the spot selected, the rapidity of movement of the Cavalry will allow it quickly to break off the action, again to dash forward, and to recommence the action at another and more favourable position. It thus tires out the enemy, gives him no rest, and plucks that success from the bloody struggle for which the other arms have prepared the way on the battlefield itself.

The tactical rôle of the Cavalry, however, is not merely confined to this. Advanced Cavalry can, if it makes skilful use of the defiles of the ground, impede the march of the enemy's advance guard, and thus obtain for its own troops the advantage, so necessary nowadays, of time to deploy. It can appear on the flank of the hostile advancing column, fire on their Artillery column of march in reverse, and thus seriously delay the enemy and obtain the greatest advantage for its own troops.

ESSENTIAL QUALITIES

What qualities, then, are required by the Cavalry in order that it may be equal to all these complex, important, and momentous duties? All its commanders, including the non-commissioned officers, must have a consummate capacity for scouting, dexterity in the transmission of orders even down to the private soldier, technical ability (telegraphing, signalling, demolition, bridging, swimming, &c.), superiority in mounted

action of man to man, cross-country riding, horsemastership, and finally, and not the least important, thorough musketry training.

The instruction of the individual man must be the first consideration ; the training of every Cavalry soldier to all his duties will always be the basis of that instruction, for the whole can only be satisfactory if every part of it is efficient. The first condition of success, however, is the ' Cavalry spirit,' that genuine, true, cool, gay, resourceful Cavalry spirit, which depends on skill, training, conviction, and consciousness of power. Without it Cavalry is useless. It must therefore be carefully fostered, promoted, and developed. It must not be stunted by trivial considerations of the difference between Cavalry and Mounted Infantry. It is certain, as may be admitted under all reserve, that in war there will be more occasions when the Cavalry, well posted, will take to its carbines to impose its wishes, and to co-operate in an action, than occasions when it will charge lines of Infantry and Artillery belching forth fire and death. It will, nevertheless, do the latter if necessary and if occasion requires it, and not hesitate for an instant, and for that it will need its Cavalry spirit, its first, its highest, its noblest, and its best characteristic. But, equally, it must be fully capable of taking part in the fire action, for there are occasions when this method of action is the best, and those occasions are both numerous and decisive. Thus—and we lay special stress on this point—the more we insist on the Cavalry spirit and everything essentially appertaining to Cavalry, the more importance do we attach to instruction in dismounted action. It is to-day an important, an indispensable branch of instruction, for on it depends the possibility of utilising Cavalry in the complex fashion which will be inevitable in the future. This versatility, which is found in Cavalry, and Cavalry alone, imposes a splendid and glorious, but also most difficult, duty on that arm. It is the characteristic of modern Cavalry, and in it lies the value of the latter.

The German Cavalry Musketry Regulations, published on September 5, 1906, constitute an excellent guide for the training and instruction of Cavalry in the fire fight. Its demands are extraordinarily high, and, in proportion, do not fall far short of what is required from Infantry. One must, of course, take into consideration that the principal idea is naturally defensive action, and the fire fight itself—that is to say, firing at the enemy at known ranges—for dismounted Cavalry attacks will probably not be frequent. Of course the Cavalry must also be trained to the latter, but shooting remains the main thing, the forward movement on foot being of less importance.

Musketry instruction depends, above all, on the thorough and continual and individual training of the man, taking into account each man's personality, on preliminary exercises, and on shooting on the range. For this we must have an intelligent, patient, efficient personnel, who are themselves good shots. No day should pass without the man taking up his carbine, if only for a few minutes, and practising aiming. Certain points such as testing the aim, either by sandbags or mirrors, bringing the rifle up to the shoulder, placing the finger on the trigger, &c., are points which should be practised over and over again, without losing patience, and without neglecting the smallest detail. It is not sufficient that a man should merely satisfy the required conditions, nor that he should satisfy them quickly. Nothing is worse than 'putting men through' the exercises, so as to get them done with as quickly as possible. If this important branch of instruction is merely regarded as an annoying non-essential, to be got through as quickly as possible 'for God's sake,' the real musketry training will be lamentable. A troop so trained will be actually useless, and will prepare disappointment both for itself and for its comrades. One should, therefore, under no pretext tolerate any slackness.

Naturally with the Cavalry, as with the Infantry, the skill in aiming and in shooting of the individual is the foundation of instruction. Target practice alone should only be the pre-

liminary to shooting under battle conditions. To this belongs: the practice of the eyes—that is to say, observing and fixing small objects on the ground at long distances (about 1,000 yards) and aiming at such distances as in war, namely on very small moving objectives; adjusting the sight, judging distance, utilisation of the ground, testing the line of sight on sandbags on objects at longer ranges up to the limit of the sighting.

After the men have been individually thoroughly grounded in all these details they should be trained to operate in groups. For this the subordinate commanders, especially, should be most carefully trained, for only good fire discipline can attain success provided the training of the men is also adequate. The instruction of section leaders commences with exercises in judging distance in the open country, utilisation of cover, selection of objective, distribution of fire, sighting, words of command and observation during action. When these commanders have been thus thoroughly instructed, exercises in groups are proceeded with, care being taken that an enemy should invariably be represented, as often as possible, on different ground and under service conditions as regards ranges, always using dummy and occasionally blank cartridges as well. The object to be steadily pursued is the minute training of each individual in the details mentioned above.

Group instruction is suitably followed by the posting to, and the training of the troop. Concurrently with ballistic and tactical exercises, matters specially affecting Cavalry are taught: viz. dismounting for action, bringing led horses under cover, rapid formation into skirmishing line, rôle of the men remaining with the led horses, orderly and rapid remounting after the engagement. The breaking off of an action is, as is well known, an exceedingly difficult matter, especially when time presses. Commanders are frequently placed in such a position that rapidity of decision, the skilful selection of a position and the proper direction of the fire fight, are brought into play. Of special instructional [importance to] groups and troops is the

distribution of live ammunition. The more time and care expended on these exercises, the greater the profit will be derived by both commanders and men.

It is known that many proposals have been made for improving the prospects in battle of Cavalry on foot. Thus, as regards the German Cavalry, a carbine, model 98 and firing the S bullet, is demanded so as to obtain a longer range and a flatter trajectory ; also a larger supply of ammunition ; and the equipping of Cavalry with several machine-gun groups. Without any possible doubt these three demands are thoroughly justified.

The training of the whole must be pursued with a view to the general object, and that object, in conclusion, is *Cavalry* excellence in the chief place. In future wars Cavalry must expect to encounter the hostile Cavalry, not only on strategic reconnaissance, but also in their operations against the enemy's flanks and against his lines of communication. On this will rest the final decision, for victory or defeat in this duel will influence the chances of future success. Thus the fight with the enemy's Cavalry will always be of primary importance. Numbers, leading, excellence, individual efficiency, are here the deciding factors. Once the hostile Cavalry is swept from the field, the Cavalry will find itself faced with various tactical situations (from local scouting to, we hope, the pursuit), and when opposed by Infantry and Artillery it must take to the carbine ; it will then have to show that it is equally capable and aggressive as skirmishers and in dismounted action. 'In short,' as a German Cavalry commander of great service recently remarked, 'in my opinion, equal importance, but not more, should be attached to the carbine as to the lance.' The Cavalry is the *mounted* arm, and that indicates the line of action it should most energetically pursue. The exigencies of the present day demand that, hand in hand with its principal rôle, it must excel in a second method of action, viz. the fire fight. May it be equal to each of these demands ! It can then never fall short of expectations.

**‘THE TRAINING OF HIGHER CAVALRY
COMMANDERS’**

Under this heading General von Pelet-Narbonne writes as follows in a recent number of the *Militär Wochenblatt*.

‘By higher Cavalry commanders I mean commanders of Cavalry divisions and corps; the command of a Cavalry brigade does not demand much greater powers than that of a regiment, so that one may generally conclude that an officer who commands his regiment efficiently is also capable of commanding a brigade. The qualities required for the command of a division are, however, of so greatly superior an order that even the very capable command of a brigade affords no certainty that the man who has exercised it will rise to the display of those higher qualities mentioned above. Far otherwise is it with regard to the capacity of the commanders of Infantry brigades for that of divisions of that arm. These gentlemen have had opportunities at manœuvres for commanding mixed bodies of men of a greater strength than that of their own brigade and have been able to display their capability for exercising the higher command.

‘Cavalry brigade commanders lack such preparation for the command of a Cavalry division; the command of a brigade in a division, being assigned to a manœuvring division as a spectator, and being occasionally employed with it, cannot supply this want. These difficulties increase in an extraordinary degree in proportion to the greater strength of the troops; a brigade can be looked after and easily commanded by one man, the commander can himself bring it to a state of efficiency; the division can only be commanded by means of orders conveyed; the danger

of friction and misunderstandings is enormously increased in which batteries and machine-guns must be included. Only by possession of powers of the most rapid decision, of absolute infallibility, and of the greatest personal calmness will commanders be able to do justice to the problems with which they are faced.

‘Personality, a factor of the highest importance in military life, is essential for Cavalry ; it is everything in the higher ranks. One has frequently seen generals commanding win victories through the excellence of their Chief of the Staff and their troops ; never, however, will a Cavalry division commander unfit for his position lead his troops to victory. The consciousness of his own inefficiency will prevent him from uttering the word necessary for launching his men to the attack, without which word the best Cavalry is condemned to inaction. The unfortunately frequent failures of our Cavalry in the last campaign were due to such conditions.

‘The opportunity for training the higher Cavalry commanders is either altogether lacking or else totally inadequate. As will be readily seen, such a training can only be carried out under the supervision of officers of that arm, for whilst officers of other branches of the Service might very possibly be able to assign missions to a Cavalry division, and judge if they were properly carried out or not, yet one could not expect them, in the case of failure, to be able to point out to the commander the methods he should have employed which might have led to success, for that entails a thorough mastery of Cavalry science and personal experience.’

General von Pelet-Narbonne then gives certain suggestions for the training of German Cavalry brigade commanders for the higher commands. He advocates that two days should be annually given to Cavalry brigades at the time of the formation of the selected Cavalry divisions for the German Imperial Manœuvres, that such brigades should be formed like divisions, with artillery and machine-guns, be placed under the senior

Cavalry brigadiers, and be given opportunities of manœuvring under the supervision of the Inspector-General. He considers that such assemblies would be beneficial both to the brigadiers and to the brigade in general, as riding in masses demands great attention on the part of the individual horseman, who would also come more under the immediate notice of his superiors, whilst the leaders would have an opportunity of practising themselves in their duties in that most important mission, the charge. 'In any case,' he concludes, 'the problem of the training of the higher Cavalry commanders is one of the utmost importance for that arm, for it is as well to reflect that when the latter are inefficient, a high standard can never be attained even with the very best schooling and with the bravest troops.'

PROBLEM No. 4

RESULT

THE number of competitors showed a slight diminution on previous competitions, but this was in some measure compensated for by the very wide area from which replies were received, comprising India, South Africa, Ceylon, &c., &c.

The following are the names of the three whose solutions are considered the best, and the prize of a watch has been forwarded to each:—

Sergeant T. Bidgood, 4th Dragoon Guards.

Corporal W. Gane, Cape Mounted Rifles.

Private A. Sinten, Cape Mounted Rifles.

It is evident from the above result that the Cape Mounted Rifles are well instructed in 'Defilade.'

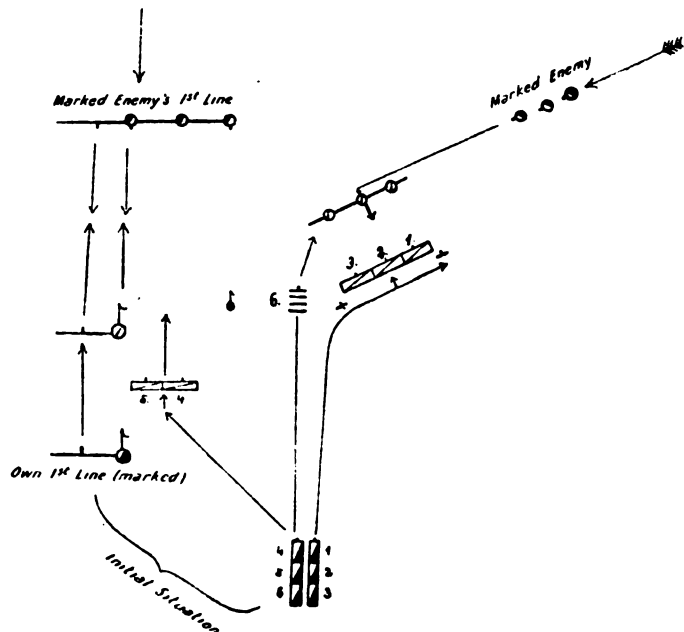
Most of the solutions were well worked out and ingenious, as the problem was purposely left a trifle indeterminate. Some rather begged the question; as the problem practically said that the scout was visible, it was the business of the solvers to find out one who could possibly be visible. As to which solution was the best, it was found very difficult to decide, so the whole were submitted to Major Godfrey-Faussett, R.E., who kindly undertook to act as referee, with the result as given above.

TACTICAL EXERCISES

THE following examples of Cavalry schemes have appeared during the last two years in the *Kavalleristische Monatshefte*, under the heading 'Training of Cavalry for the Fight,' by Major-General Karl Tersztyansky de Nadas. The method of execution shown on the sketches must not be regarded as a model to be blindly followed, but only as one possible solution of the problem. As the organisation of the Austro-Hungarian Cavalry differs considerably from that of the British Cavalry, it is necessary to bear in mind when studying the sketches that a Cavalry regiment consists of two divisions, each of three squadrons, the squadrons being numbered consecutively from 1 to 6.

(1) Task.—*Leading the Second Line. Assumption and Execution.*

Enemy's first line overlaps one's own front by two squadrons, and three squadrons are directed against flank of one's own first line.



(1) REGIMENT v. MARKED ENEMY

Dispositions.—Second division extends right of first line; first division wards off enemy's flank attack; sixth squadron forms reserve between the two

divisions. If first line cannot check its pace the extension will take echelon form. I do not agree with view that such a reinforcing detachment can be hurried off at an increased pace and catch up first line. Besides, echelon is useful formation, spares horses' wind, facilitates good order.

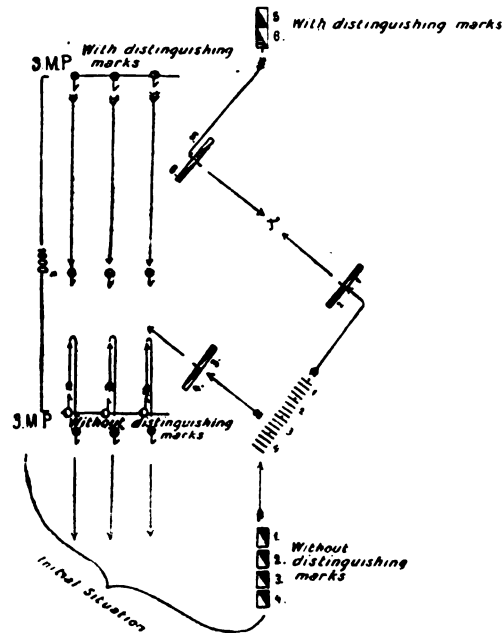
(2) *Task.—Leading the Second Line. Assumption and Execution.*

The two first lines—each marked as a wing division—attack each other.

Southern force has four } full squadrons as second line.

Northern force has two }

First line southern force suddenly wheels about at 500 paces from enemy, who pursues straight to his front.



(2) **ONE PORTION OF REGIMENT V. THE OTHER AND MARKED TROOPS**

Skeleton troops marked by six sections, three showing own troops and three the enemy

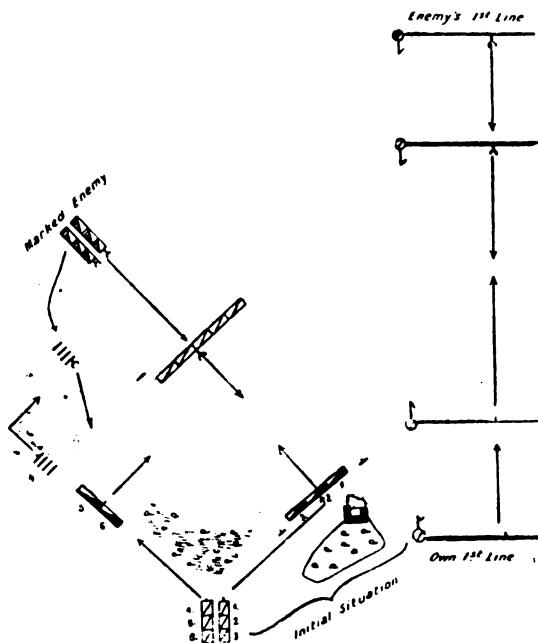
Regimental commander, southern force, who should not be told that first line will wheel about, will decide how to meet the situation. Northern force will act according to instructions of officer superintending the exercise.

N.B.—It is advisable to detail the rear squadrons to check the pursuit, since if the leading squadrons are detailed they may easily lead away the rear squadrons in a false direction.

(Practice in estimating right moment to turn against the enemy.)

(3) *Task.—Leading the Third Line. Assumption and Execution.*

The regiment as third line is moving forward on left, and observes enemy waiting a flank movement towards first line. The regimental commander decides to combine covering the flank with a flank attack. He orders :—



(8) REGIMENT v. MARKED ENEMY

First division : Direction between swamp and copse, so as to attack enemy in front.

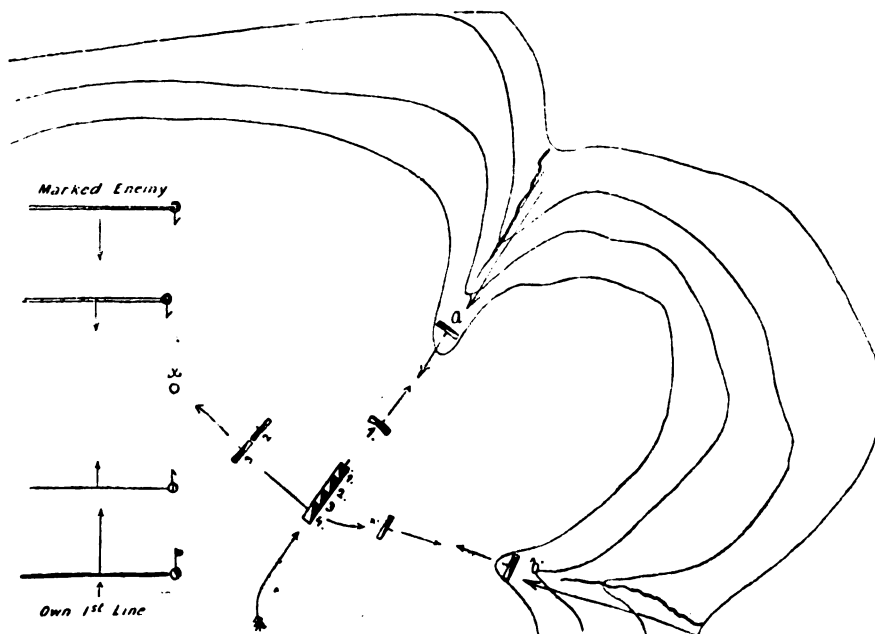
Second division : Attack enemy's flank.

Fourth squadron : Form reserve on left.

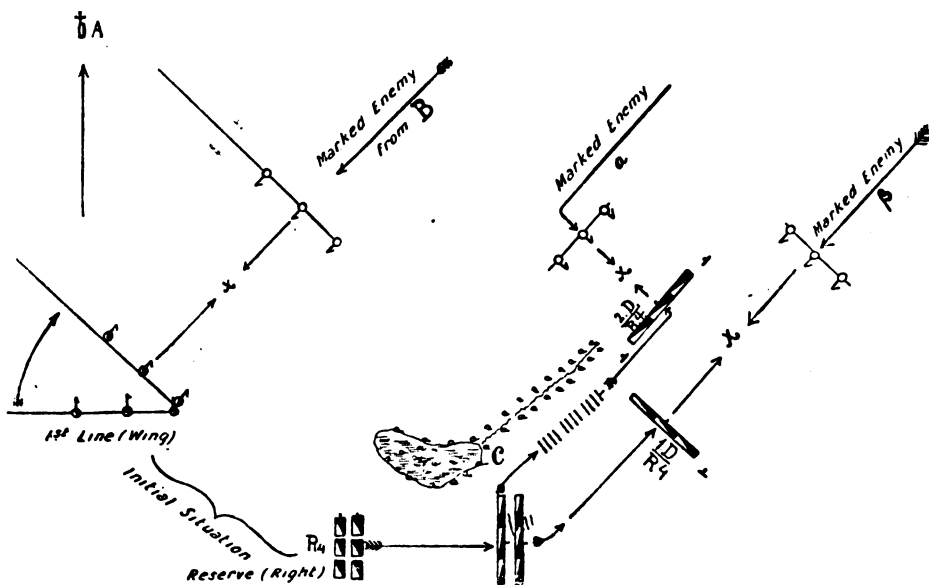
(4) *Task.—Leading of an 'Offensive Group,' influenced by Measures taken by Enemy. Assumption and Execution.*

The first lines (marked) go straight at each other, and four full squadrons as 'offensive group' move forward with order to attack left wing of enemy's first line. During the movement there appear, from depressions of ground, the two hostile squadrons *a* and *b* threatening the flank of column.

(Very useful practice for training squadrons to detach themselves, rapidly and orderly, from column.)



(4) ONE PORTION OF REGIMENT v. THE OTHER



(5) REGIMENT v. MARKED ENEMY

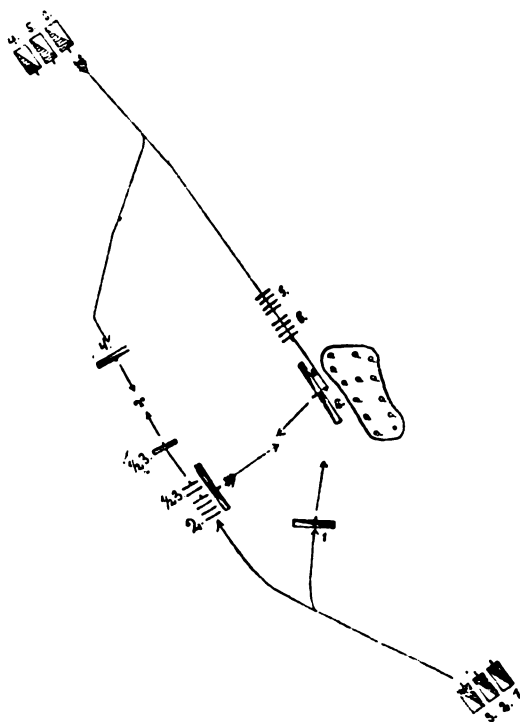
(5) *Task.—Leading the Third Line. Assumption and Execution.*

The Cavalry division was prematurely moved in a false direction on α in fighting formation. Enemy comes from β . As he is still distant and time is available : 'Change direction half-right.'

R 4 is in reserve on right. It wheels by divisions with object of turning the swamp and then joining in the fight. Arrived at c , the regimental commander sees the two hostile detachments α and β . He orders second division to attack α , and first division to attack β (the furthest off).

(6) *Task.—Both divisions, in mass, receive the order : Attack enemy in flank. Execution.*

Second division went forward immediately in column of troops towards north end of copse. First division waited till direction of enemy's advance became known, then also formed column of troops and moved towards south



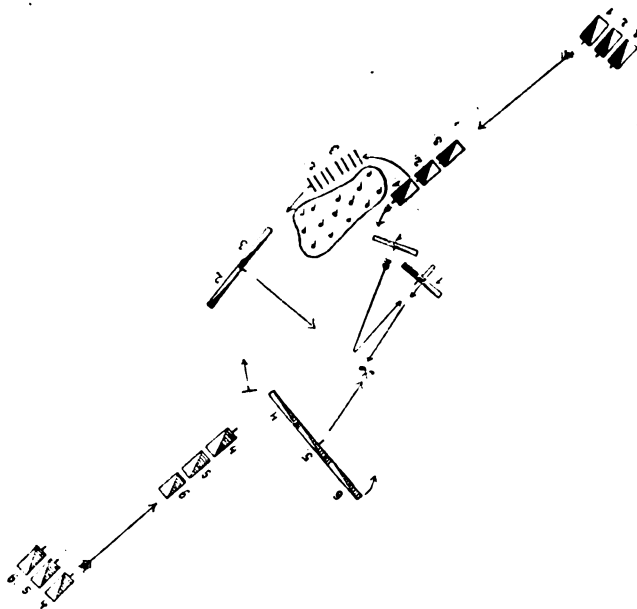
(6) DIVISION α . DIVISION

end of copse. When second division sent its rear squadron against head of first division, the latter pushed forward half of leading squadron and turned with one and a half squadrons against second division in column, which had meanwhile

reached southern boundary of copse. Rear squadron, first division, took direction towards head of hostile force and then made simultaneous attack on its left wing.

- (7) *Task.—Both divisions in mass. Second division receives order : ‘Attack to the front.’ First division receives order : ‘Attack the enemy in flank.’ Execution.*

Both divisions form column of troops. First division keeps close to south corner of copse. Arrived there the commander orders : ‘First squadron attack head of enemy’s column’ ; then leads second and third squadrons round the copse,



(7) DIVISION v. DIVISION

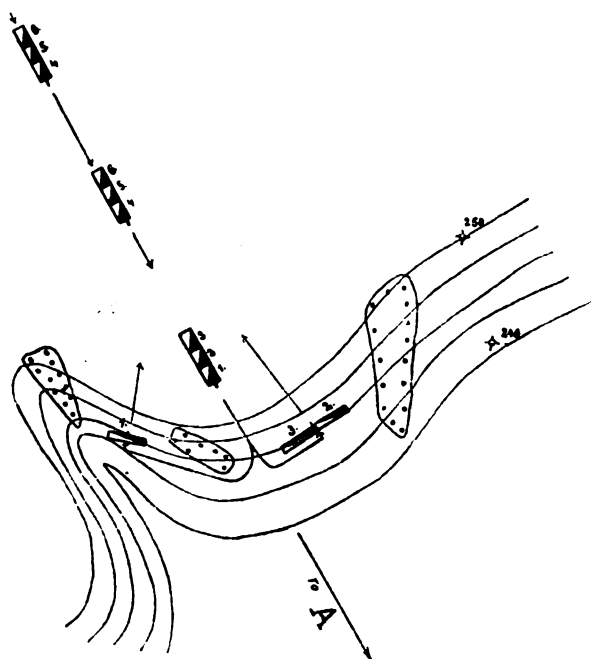
and then wheels left into line against flank of enemy, who has meanwhile deployed. Second division allows itself to be deceived by advance of leading hostile squadron, deploys to front on right, and finds itself in evil circumstances.

(One manœuvred ; the other blindly fell into a trap.)

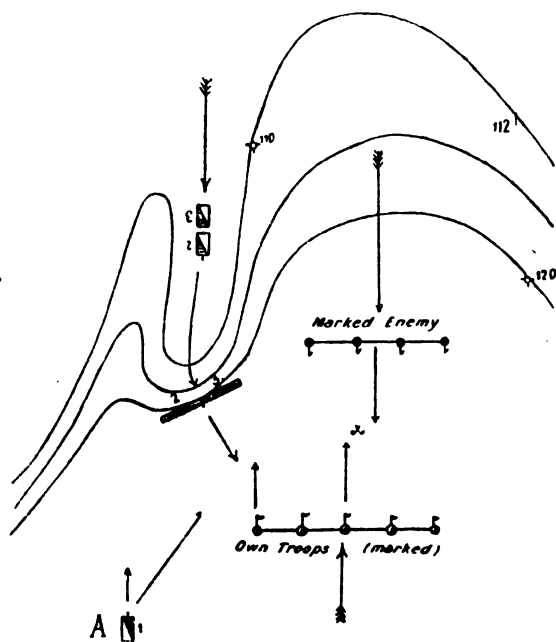
- (8) *Task.—Division v. Division. Assumption and Execution.*

First division retires towards A, pursued by second division. Commander, first division, decides, being favoured by ground, to attack enemy and then continue his retirement.

Commander, second division, receives only the order : ‘Pursue first division !’ What should he do ?



(8) DIVISION v. DIVISION



(9) DIVISION v. MARKED ENEMY

(9) *Task.—Division v. Marked Enemy. Assumption and Execution.*

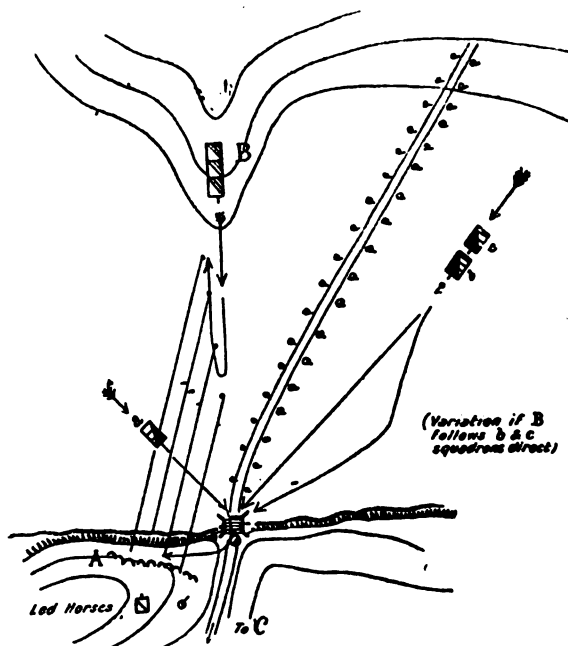
First squadron in column is echeloned on left as reserve, and is following the regiment already deployed. Arrived at A it sees two hostile (full) squadrons threatening right wing of regiment, and hardly more than 300 paces from it. What should squadron commander do?

(Attack the hostile squadrons in flank immediately, in column.)

N.B.—Second and third squadrons act according to instructions.

(10) *Task.—Division v. Division. Assumption and Execution.*

Squadrons *a*, *b*, *c* have orders to retire behind the bridge and concentrate there. In the given situation a hostile division appears at B, and directs its march on the bridge. Squadron *a* sees that *b* and *c* are exactly the same distance as



(10) DIVISION v. DIVISION

the enemy from the bridge. What should *a* do? (Gallop behind the bridge, dismount, and keep enemy at a distance by carbine fire until *b* and *c* have passed the bridge.)

What should *b* division do?

RECENT PUBLICATIONS

'SADOWA: A STUDY'

By General H. Bonnal. Translated by C. F. Atkinson, Lieut. 1st V.B. Royal Fusiliers.

This excellent translation of a book containing a *résumé* of certain lectures given to the French Staff College is of the utmost interest to any officer who would understand strategy without laboriously studying theoretical works of great learning, but whose assertions are only partially comprehensible to the beginner, for nothing could be simpler, either in language or in argument, than the book under review.

The author deals critically with two doctrines of the Prussian General Staff by the light of its performances in the war of 1866. The Austrian movements are only so far referred to as may be necessary to unfold the situation. A critical analysis shows how the correct application of sound principles achieved great success in spite of many faults and in the face of an extremely unfavourable opening. In the midst of the general decadence of military science which followed the wars of the Revolution, Clausewitz and other Prussian officers had kept alive the true spirit of military teaching, and the Prussian military authorities had had the wit to employ, as their chief adviser, an officer who combined a genius for organisation with the rarer talents of a mighty strategist and tactician. The introductory chapter of Part I. explains the position of Moltke and the influence he wielded in the preparation and leadership of the Prussian forces.

Chapter II. very briefly gives the events which preceded the outbreak of hostilities; then the mobilisation and concentration of the Prussian armies are described. Seldom has a military power successfully braved so great a preponderance of resources as faced the Prussians in June 1866, remembering that a formidable fraction of their enemies lay within a few marches of Berlin and were composed of their own countrymen. The situation was rendered more difficult by the faulty original disposition of a large fraction of the army, which was posted so as to afford local protection to Silesia instead of combining with the main body of the army in the original concentration. The incapacity of their opponents failed to profit by this error, which was successfully corrected by Moltke as soon as he might.

The marches and combats of the three Prussian armies which preceded the decisive battle are very briefly given, and are treated as of no considerable importance to the main issue. The apathy of the Austrian commander in failing to use his superior strength against the divided forces of his enemy

while it was still possible to do so, owing to time and space, is of especial interest.

In Chapter IV. the positions and movements of the three Prussian armies on July 1 and 2 are described, and the orders issued by Headquarters, and by the Army commanders, are quoted. In Part II. the battle of Sadowa, fought between hosts of over 200,000 men on either side, is explained in detail. The ignorance of one another's dispositions on the eve of the battle, in spite of the close proximity of such great forces, is remarkable. The rash attack by the First Prussian Army on its immediate adversary without waiting to arrange timely combination with the Second Army; Moltke's tact and judgment in redeeming these errors, and the skilful leadership of the three Prussian Divisions which formed the Army of the Elbe, form a most instructive picture. Incapacity in high command has ruined many a good cause and fine army, but seldom has utter inability to lead been displayed on a greater scale than by the Austrian Commander-in-Chief at Sadowa. The unusual excellence of the Prussian subordinate commanders, and the tactical superiority of the Prussian Infantry armed with a quick-loading rifle against the Austrians with muzzle-loaders, kept the event in suspense until the Prussian Second Army reached the field and rolled up their enemy by the direction of their attack. On both sides considerable masses were not brought to bear.

Although the confusion and loss on the defeated side was considerable, yet the Austrian army escaped from the field in far better condition than it should have done if the Prussians had made the best use of their power after the arrival of their Second Army. Most interesting of all is the utter inability of either side to utilise the formidable Cavalry Divisions kept in reserve, and the disjointed character of the operations in consequence. Like the arms of Achilles, the mighty weapons furnished by the 'war of masses' are not to be wielded by a tyro: they demand the skill and experience of a great chief. Such a one undoubtedly was Moltke; but although in the sixty-sixth year of his age, Sadowa was his first battle, and he had not on that day the authority over the princely commanders of armies which his success enabled him subsequently to exercise. Moreover, Moltke never understood how to use his Cavalry like Napoleon.

After the Prussian Infantry and their company commanders, the Austrian Artillery most distinguished themselves in the struggle, whose vicissitudes are illustrated more vividly, perhaps, by the excellent maps of every stage of the battle than by the description in the text, simple and straightforward though it be. No one interested in military history can fail to read this book with pleasure, nor to enjoy the sly thrusts made by its author at the royal princes who were at the head of the Prussian Army in 1866.

‘MILITARY HISTORY APPLIED TO MODERN WARFARE’

A guide to the study of military history exemplified by studies of the campaigns of Austerlitz, Jena, Vimiero, Corunna, Salamanca, Waterloo, and the Shenandoah Valley.

By the late Captain J. W. E. Donaldson, R.F.A., with 16 maps and plans. Second edition. Revised and enlarged. By Captain A. F. Becke, late R.F.A.

The seven campaigns selected for examination are happily chosen to illustrate the methods of Wellington, Napoleon, and Jackson. The chapter on Austerlitz deals with the faulty strategical distribution of the Austrian forces in October 1805, the needless exposure of their strategic advanced guard at Ulm, the failure of the Russian armies to co-operate in respect of time, and the splendid march of the French army by which the investment of Ulm was effected. The operations of Murat's Cavalry Corps, which threw a cloak over the Austrian General, are however omitted, though in describing the campaign of Jena in the following year the destruction of the defeated Prussians by Murat's pursuit is duly given.

Wellington's tactical skill displayed by his first important victory in Europe is well explained, and the operations of Sir John Moore are given in considerable detail. The strategy of Moore's expedition and the conduct of his famous retreat and successful action at Corunna fill an interesting chapter. In the Salamanca campaign the manœuvres of the rival armies in the days preceding the battle, which actually turned the tide of victory against the French conqueror, are followed at some length, and Wellington's strategy after his tactical success is discussed.

The best chapter in the book considers the campaign of Waterloo. The masterly concentration of the French army, and the successful surprise of the Allied commanders, who had failed to reconnoitre with Cavalry into French territory, is given its due importance. The comparative slowness of the tactical handling of Napoleon's army on the three fateful days, June 16, 17, and 18, which gave back to the Allied commanders the strategical advantage, is dwelt upon. Perhaps the most remarkable feature of the Waterloo campaign is the absolute confidence felt both by Wellington and Napoleon that they would be victorious, and the consequent neglect of each to secure all the advantages within his reach at the decisive collision. Napoleon certainly believed that the troops which he deployed against Wellington would utterly destroy him in a six-hour battle; Wellington never thought the French would be able to press him as hard as they actually did.

The last chapter recounts the oft-told tale of Jackson's Valley campaign, but is not as good as Henderson's summary of it. It is very remarkable that the Valley campaign, which was, after all, but of the nature of a raid, is given over and over again by the professors of military history, while the campaigns of the war after the death of Jackson are almost entirely neglected. We agree with the author that no war affords better lessons to the British soldier than the War of Secession, and we yield to no one in admiration of Jackson's dazzling genius, but the years which followed his death at Chancellorsville, the critical struggle at Gettysburg, the invasion of Virginia by Grant, and the final glorious stand before Richmond, are not less worthy of study, while excellent histories and maps exist for the purpose.

‘MORGAN'S CAVALRY’

By Basil W. Duke. New York: Neale Publishing Co., 1906.

This is a new and revised edition with maps and illustrations. Morgan's career during the American War was a most remarkable one, and, whatever credit

be allowed or denied him, he discovered uses for Cavalry, or rather Mounted Riflemen, to which that arm was never applied before. While other Cavalry officers were adhering to the traditions of former wars and the systems of the schools, however inapplicable to the demands of their day and the nature of the struggle, he originated and perfected, not only a system of tactics, a method of fighting and handling men in the presence of the enemy, but also a strategy as effective as it was novel.

An imitator in nothing, self-taught in all that he knew or did, he accomplished with his handful of men results which would otherwise have required armies and the costly preparations of regular and extensive campaigns.

His favourite strategy on his important expeditions or 'raids' was to place himself by long and swift marches—moving sometimes for days and nights without a halt except to feed the horses—in the very heart of the territory where were the objects of his enterprise. The account of his career is full of remarkable and exciting incidents, and is well told by his friend and follower throughout—the author.

A gentleman 'from abroad' was his Adjutant-General, and was of great assistance to him. This was Lieut.-Colonel George St. Leger Greenfel, an Englishman, who had served five years with the French in Algeria, and four years with Abd-el-Kader, of whom he always spoke in the highest terms. Having exhausted life in Africa he looked elsewhere for excitement, and passed several years in great happiness amid the pleasant scenes of the Crimean War and the Sepoy Rebellion. After leaving Morgan he was made Chief Inspector of Cavalry, and became the terror of the entire 'front.' The book is well provided with clear maps showing the routes of the various 'raids,' and abounds in incidents of intense interest.

'LA CAVALERIE PENDANT LA RÉVOLUTION'

Par le Commandant breveté E. Desbrière, et le Capitaine M. Santai.
Published by Berger-Levrault. Paris, 1907.

This is a publication of the historical section of the French General Staff, and gives an interesting, if somewhat technical, account of the evolution of the Cavalry during the period from July 14, 1789, to June 26, 1794. It is well provided with sketch maps. Speaking of the changes in the organisation of the Cavalry between April 1792 and June 1794, the following paragraph is instructive:—

'From the commencement of hostilities, the extreme difficulty of operations, caused by the weakness of the Cavalry arm, was painfully apparent, and the energetic efforts made, both by the Legislative Assembly and the National Convention, deserve the fullest recognition. If the unremitting efforts of the Central Authority produced no effective results until much later, they proved nevertheless two facts, the importance of which remains throughout all ages: firstly, that Cavalry cannot be improvised; secondly, that at the hour of the crisis the absolute necessity of strong masses of Cavalry impressed itself on all minds.'

‘MEMOIRS OF THE EIGHTEENTH (PRINCESS OF WALES’S OWN)
HUSSARS’

By Colonel Harold Malet. London: Simpkin & Co., Limited, 1907.
Price 23s.

It is not given to every man to complete a work commenced nearly forty years ago. It was in 1868 that Colonel Harold Malet published the first records of the two distinguished regiments which make up what we know as the 18th Hussars, and since then many letters and diaries of Peninsular and Belgium days have come into his possession, so that he has been well advised in bringing these new and interesting Memoirs up to date. Colonel Malet has been very fortunate in the diaries relative to the Corunna and Vittoria campaigns, which are very full and from which copious extracts are given, and there must be few compilers of regimental records who have had so much and so valuable material to draw upon, or who have used it to better purpose. Raised by Lord Drogheda in 1744, part of the regiment was employed first in Jamaica and then in Holland, and, being sent in 1808 to Portugal, landed on the very day that the battle of Vimeiro was being fought, and, brigaded with the 3rd Light Dragoons of the German Legion, formed part of the column under Sir John Hope. It is matter of history how well Charles Stewart’s Hussar Brigade behaved in the retreat to Corunna, during which, alone almost of the whole army, the Cavalry maintained their discipline throughout. In the campaign of 1813 the 18th, with the 10th and 15th Hussars, were constantly employed, but the diaries and letters which make up the records of those days induce a feeling that the great Duke was not altogether fair towards the 18th, that he had little sympathy for the rather troublesome Irishmen who composed the regiment, and that with him good service in the face of the enemy could not atone for irregularities in quarters. Much of the regimental history in regard to Waterloo has already been collated by Siborne, but there is much that is fresh and interesting and amusing in the verses and sketches illustrative of life in France during the occupation. The story of the regiment ends with the Boer War and the fresh laurels which the young 18th won in that country of buried reputations.

The whole book is exceedingly interesting and is thoroughly well illustrated and got up, but to the majority of readers the most attractive portions will be the diaries and letters relating to the Peninsular campaigns which Colonel Malet has rescued from oblivion, and so happily strung together for the benefit of those

‘Who fill the places *they* once filled,
And follow in the furrows that *they* tilled.’

THE AUSTRIAN CAVALRY JOURNAL

The *Kavalleristische Monatshefte* contains many papers interesting to the mounted arm. The October number commences with an account of the battle of Rossbach, fought just a hundred and fifty years ago, on November 5. Major-General Freiben von Gemmingen, commanding the 5th Cavalry Division, describes some exercises in the crossing of rivers by Cavalry. He mentions, too, an

attempt to swim over a horse with his saddle on, whereby the unfortunate animal was nearly drowned, owing to his girths not having been sufficiently slackened before entering the water. The General naïvely remarks that he did not experiment with any more horses to see how loose the girths ought to be! Lieut.-Colonel von Sanden discusses at some length the different methods of Baucher, Fillis, and Plintzner, and another officer of the same rank writes on the Cavalry fire fight, and holds that no Cavalry not thoroughly trained as such could, with any hope of success undertake a raid, since the men could neither get there nor get back again unless their Cavalry instruction had been of a high order. He quotes Rittmeister Spaits, who was present with the Russians throughout the late war, in proof of his statement that the ill-success of the Russian Cavalry lay chiefly in the errors of the command, and not because they did not know how to act dismounted. *Unsere blanke Waffe* is a suggestion that the sword should be carried on the near side of the horse *in front of* the rider, and that the Cavalryman's firearm should be provided with a bayonet. There is a short paper on the employment of Cavalry in the Italian manœuvres of 1907, and a long one on the Russian Cavalry at the battle of Mukden. Rittmeister Alexander Spaits has an appreciative article on the *matériel* composing the mounted forces of Turkey, but compares very unfavourably their turn-out, and that also of the Swabian Cavalry, with the Bosnian soldiery in the Austrian service. There are two or three articles in this number of veterinary interest, and some notices of foreign Cavalries and extracts from foreign journals. The November issue of the Journal has two thoughtful papers, the one on 'Reconnaissance—then and now,' the other on 'The Cavalry Screen': both will repay perusal. Major-General Gradinger contributes a very soldierly appreciation of 'Cromwell as a Leader of Cavalry,' from which one learns that Professor Michael has just published an important work on Cromwell. General Gradinger very properly draws attention to Cromwell's qualities not only as a leader in the field, but as an instructor. Then follows the first of a series on 'The Training Problems' of Cavalry, and an account of the work of the German Cavalry during the last manœuvres. 'The Attack of Mahmud Bey at Velestino' is an interesting account of an incident in, comparatively, modern war, and Freiben von Esebeck describes a visit to the Danish Military Riding School at Copenhagen. There are the usual notes on foreign Cavalries—those on the British being fuller than usual; and, finally, there is a very pleasing mention by an Austrian officer of the visit of Major-General Scobell, the Inspector of Cavalry, with two other British officers, to this year's Austrian Cavalry manœuvres.

'JOURNAL OF THE U.S. CAVALRY ASSOCIATION'

The October number has an article by Major W. C. Brown, 3rd U.S. Cavalry, on 'Appliances for crossing Streams'—giving an account, as a result of experiences in Manila, of two appliances made from soldiers' kits that seem useful for that purpose.

There is also an article by First-Lieutenant Edward B. Vedder, A.M., M.D., describing 'a new mosquito bar which can be used with the shelter tent.' This

should appeal to those whose service lies in tropical climates. It is believed that its use in the field would go far towards reducing the amount of sickness from malaria and other mosquito-borne diseases, not to mention the fact that endurance and efficiency would be increased by affording a night of peaceful sleep, undisturbed by mosquitoes, centipedes, and the numerous other vermin of the tropics.

‘THE JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION’

The November number deals with Part II. of the Von Löbell annual reports on military matters in 1906. As regards Cavalry in general, he says :—

‘The employment by Cavalry of the latest technical appliances opens a wide field of activity to this arm, which is being extended year by year. That Cavalrymen should be made acquainted with modern methods of communication is, therefore, an important part of their training. Unfortunately, no Cavalry reconnaissance rides were held in Germany last year on a large scale. The increased importance of their service in gaining intelligence by no means detracts from that of their fighting efficiency. For it is an essential condition of their gaining intelligence that they should be able to defeat hostile Cavalry and to protect their own communications. A Cavalry which from the first avoids engagements can, like Mounted Infantry, hold certain points, and thus to a certain extent screen the movements of its own side ; but it will never be able to reconnoitre successfully those of the enemy. It is remarkable that those States who were opposed in the late campaigns to an enemy whose Cavalry was either non-existent or inferior should have used their own Cavalry as Mounted Infantry ; whereas in France the contrary spirit prevails. There it is recognised that the lance may still play a decisive part in battle ; but their idea that by skilful manœuvring they will be able to gain the hostile flanks is scarcely likely to be realised against so well-trained a body as the German Lancers. The latter will therefore seek this decisive mounted action. With its higher leaders will lie the essential duty of concentrating for this purpose, at the right time and place, the reconnoitring advanced Cavalry which has been spread over a wide front. Superiority in dismounted action is also necessary, and more training in this is required, for no sensible Cavalryman now denies the value of this. We recognise many defects in this part of our training, and our Cavalry require a rifle more akin to the Infantry weapon. Nor can we overlook the necessity of an increase in the rifle ammunition to be carried by Cavalrymen.

‘In like manner is a less conspicuous uniform required, such as that of the British Cavalry. Cavalry cannot dispense with a better firearm even for its other work. They may even decisively influence the issue of a battle if, as in the Imperial Manœuvres at Liegnitz in 1906, they succeed in working round the hostile flanks and rear with machine guns. For this purpose several Cavalry Divisions must be united, for in this case, as in every other, sufficient force must be employed if success of any value is to be attained. The same remark applies to the employment of Cavalry in the charge. Great masses are required to ensure great success. Future battlefields will be of wide extent. The opportunities of collecting the Cavalry for such efforts *en masse* will doubtless be fewer. But as long as surprise is possible or the exhaustion of Infantry ammuni-

tion within the probabilities, Cavalry need never despair of success, even with the *arme blanche*.

'THE ROYAL ENGINEERS' JOURNAL'

The December number gives illustrations of a design for an Indian Troop Stable prepared by Major E. Stokes-Roberts, R.E., and Captain W. Evans, R.E., which promises to be economical and suitable, providing the full authorised clear standing of 14 feet by 8 feet per horse with a five feet feeding passage.

'The question of the provision of reasonably good troop stabling at a moderate figure is a matter that is constantly occupying the minds of those responsible for getting the best value out of the works estimates.

'The veterinary and regimental authorities are continually urging claims for greater space, better flooring, improved ventilation, additional conveniences such as expense forage stores, litter sheds, &c., all of which are no doubt desirable. The result is that our standard plan of troop stable at home (Standard Plan No. 29), with its high-class fittings, blue brick-paved floor, and ample cubic space (1,500 cubic feet), is a model of what such buildings should be; but it costs on the average £60 per horse to erect.

'Cavalry regiments going out to India are apt to look askance at the simple shed consisting of nothing but a roof carried by a number of pillars, with perhaps an earthen floor, and a total absence of all the fittings and accessories to which they have been accustomed.

'Good stabling is of much importance to the health of horses in a trying climate, but it must be borne in mind that what is suitable in England is absolutely unsuitable in a tropical climate. In India the chief essential is roof covering that will be sufficient to protect both the horses and men working in the stables without topees from the fierce rays of the sun; next in importance is the freest possible circulation of air through the stable and a liberal spacing of the horses; walls are therefore best omitted, and protection from glare given when necessary by bamboo screens, which can be rolled up in the morning and evening.

'Horses are best arranged in all tropical climates in stables that are practically open to the air, with their heads towards a central feeding passage, thus reducing the glare in their eyes, giving greater protection from the sun, and simplifying the work of feeding and watering.

'The materials of which the stable is built need to be carefully chosen. A stable with an earthen floor, pillars of sun-dried brick-work, and roof of country tiling carried on wood framing will be much cooler than one built of burnt bricks and with a steel-trussed roof and superior hard burnt tiles, especially if a brick-paved floor is given to add to the heat-absorbing surfaces; it does not therefore follow that the more expensive stable is in all respects the best.'

'THE SWISS CAVALRY (DIE SCHWEIZERISCHE KAVALLERIE)'

By Colonel Markwalder. Aarau, 1906. Sauerlander. 5s.

The first part of the book deals generally with the employment and distribution of the Cavalry in Switzerland, pointing out that the political and

topographical conditions of that country render the maintenance of a large force of Cavalry out of the question. The second part deals with the training of horses and men. There are many points of similarity between the organisation of the Swiss Cavalry and the mounted units of our proposed Territorial Army, which should make the book interesting reading, not only to Cavalry officers, but more especially to those connected with the Imperial Yeomanry.

‘THE SIGNALLER’S POCKET BOOK’

By G. W. Browne, 20th Hussars. Published by Gale & Polden, Limited.
6d. net.

Contains practical hints and notes on Army signalling, showing the right and the wrong ways of doing it. Both for instructors and pupils the book is full of useful object lessons, the chief points insisted upon being accuracy, rapidity, and secrecy. Examples are given of practical schemes, and the writer pleads for a more intelligent appreciation by all ranks as to the ordinary elementary rules of visual signalling, so that the peculiarities and difficulties attached to this branch of special training might be a little better understood.

‘ACTIVE SERVICE POCKET BOOK’

By Bertrand Stewart. Published by Wm. Clowes and Sons, Ltd. Price 4s.

We have received a third and enlarged edition of this work, which has been called for by the rapid sales of the first and second editions, not only at home, but in India and throughout the Colonies.

It is increased from 425 pages to 932 pages, but is only an inch thick, and quite convenient to carry. There are a large number of plates, and almost every subject that is likely to come in the path of an officer on active service is comprehensively dealt with, and there is an excellent index. A very useful piece of information is a list of conventional signs used on the foreign maps of various countries.

‘THE MAN-EATERS OF ISAVO’

By Lieut.-Colonel J. H. Patterson, D.S.O. Macmillan & Co.

Contains the East African adventures of the author. Told in a simple and modest way, his thrilling experiences with men and lions will be read with interest by both old and young and by persons with and without sporting tastes.

The book is delightfully illustrated, and we can confidently recommend it to all, but especially to those who contemplate a trip to Uganda, where Colonel Patterson is now chief game ranger. We hope that the author’s adventures in other parts of the globe will soon find their way into print.

NOTES

A CAVALRY CHARGE IN 1907

THE *Times* of October 23 contained an account of a brilliant Cavalry action near Casablanca on October 19, from which we give the following extracts:—

‘Yesterday’s reconnaissance developed into a long engagement and a brilliant Cavalry action. The force was under Colonel Du Fretay, commanding the Cavalry, and consisted of Chasseurs d’Afrique, spahis, *goumiers*, two mitrailleuses, and half a battalion of the First Legion, 600 men in all. The original intention was to limit the advance of the Infantry to Alvarez Farm, the Cavalry patrolling as far as possible from that support. Sniping led the force gradually further, till, south-east of the three marabouts’ tombs at Teddert, the spahis engaged thirty men in a farm at Bu Allam. The Arabs were dislodged and pursued, and the French Infantry occupied the farm at 11 A.M. Colonel Du Fretay’s Cavalry ranging wide attracted the advance of numerous Arabs, mounted and on foot, mostly from the direction of Kasbah Mediuna. The Cavalry retired, clearing the front of the farm.

‘The situation at noon was as follows: The Infantry in a ditch with a breast-work dug round the farm were facing east; the spahis were on the right rear, the Chasseurs on the left rear, and the *goumiers* were in a farm enclosure further to the left rear. The Arabs, estimated at 2,500, attacked, gradually enveloping the French left. Seeing the *goumiers* threatened, the Chasseurs dismounted and became seriously engaged, whereupon Colonel Du Fretay sent half the spahis to prolong the Chasseurs’ left. The spahis advancing, the Chasseurs mounted and charged well home to the left front rallying under heavy fire. The spahis’ halt squadron charged very brilliantly past the Chasseurs’ left, and the Chasseurs changed front and charged again on the left rear, the spahis again supporting them and repelling the Arabs who were pressing the *goumiers*. Fierce hand-to-hand fighting ensued, the Arabs, after discharging their rifles, hurling stones in the horses’ faces. Lieutenants Burnol and Reich, of the Chasseurs, each had two horses killed. Lieutenant Burnol, falling beneath his horse, was seized by Arabs, but ran an Arab through as the spahis arrived. An active pursuit broke the Arabs in half, part retiring towards Kasbah Mediuna and part towards Casablanca.

‘I regret to report that Captain Ihler, commanding the Chasseurs, was killed while mounting to charge. Two men were also killed and six wounded, all of the Cavalry, and ten horses were killed and eighteen wounded. The Infantry were under fire for three and three-quarter hours, but they were well placed and none were hit. The enemy’s loss was considerable. A charge dropped nineteen. I saw eleven corpses, all sabred, and in another valley about forty dead were counted.’

A FREE HAND FOR CAVALRY

General Lord Grenfell, in the course of a long criticism of the Army manœuvres in Ireland, makes the following comments:—

‘The Cavalry must be given a free hand, if any good is to be expected of them and the fitness of the horses maintained. If the Cavalry is in the right place it will, as a rule, during the early stages be at a considerable distance from the Commander-in-Chief—possibly widely dispersed. If orders are sent with every change of the situation, much, and often unnecessary, fatigue is caused to the horses, which might be avoided were the Cavalry Commander given a definite task and left to carry it out. Give him constant information, but leave him alone if he can be trusted. If he cannot, it is better to appoint another Commander.’

CAVALRY IN THE SOUTHERN COMMAND

General Sir Ian Hamilton, Commanding-in-Chief, Southern Command, in publishing his review of the work of the past training season, says:—

‘*Cavalry*.—It was in the battle tactics of the Cavalry that the most striking change from the methods of 1906 was observable. There was no longer even a trace of the fault then animadverted upon; the fault, namely, that, “where the conditions were not favourable to charges in open or close order, there was a tendency to hang back or look on, even although the Infantry conflict might have reached a most critical stage.” On the contrary, in the manœuvres of this year, the Cavalry took their full share of the fighting; sometimes in the form of shock tactics; sometimes dismounted, and, on several occasions, by a judicious and successful combination of mounted and dismounted work. There is reason then for hope that the heated controversies of the past few years as to the respective merits of shock and fire tactics are at last cooling down into the sensible conclusion that there may be room on the battlefield for either or for both.’

THE 2ND AUSTRALIAN LIGHT HORSE BRIGADE

This Brigade carried out its annual continuous training in April of last year in camp at Anambah, West Maitland, on land lent for the purpose by Mr. W. Mackay.

The corps represented were:—

4th A.L.H. Regiment (Hunter River Lancers), full strength, Major W. C. Markwell, commanding.

6th A.L.H. Regiment (New England Light Horse), 96 per cent., Lieut.-Colonel the Hon. R. Carington, C.V.O., D.S.O., commanding.

A.A.M. Corps and Field Hospital, Major R. Alcorn in charge, assisted by Captain McKay, and under the command of Major Lane Mullins, S.O., for medical services.

A.A.S. Corps Detachment with wagons under Captain Martin; Signalling Detachment under Lieutenant Donkin.

The marching-out state shows a total of 49 officers, 613 men, and 567 horses.

The general quality of the horses brought into camp was much above the average, and in the case of at least two squadrons nothing better in the way of horseflesh could be desired.

The following is a brief diary of the work :—

Thursday, April 18.

Troops marching into camp, arrivals continuing into the early morning of the 19th.

Friday, April 19.

Squadron and regimental drill with evening lecture by Captain Brand, I.S.

Saturday, April 20.

Regimental and Brigade drill with evening lecture by the Brigadier ; and also a short address, by Lieut.-Colonel Irving, on the care of horses in camp.

Sunday, April 21.

Church parade.

Officers' instructional ride over the country to the N.W. of the camp to take notes in anticipation of the field movements of Thursday, April 25.

Lecture on Map Reading by Captain Brand, I.S., in afternoon ; lecture by Lieut.-Colonel the Hon. R. Carington, D.S.O., followed by an explanation of the strategical and tactical ideas for Monday and Tuesday, by the Brigadier.

Monday, April 22.

Field operations and bivouac at Seaham.

The District Commandant arrives.

Tuesday, April 23.

Field operations continued.

Wednesday, April 24.

Inspection of Brigade by the District Commandant in the Show Grounds. Afternoon sports.

Thursday, April 25.

An attack on the camp by two squadrons, and subsequent repulse by the remaining six squadrons, in accordance with special instructions carried out on ground inspected by the officers on Sunday afternoon, in order to exercise the Brigade in troop and squadron and regimental attack as well as defence. The ground was admirably suited for the purpose and the movements.

Afterwards Brigade drill, by Lieut.-Colonel the Hon. R. Carington. In the afternoon tests of teams for competition—Prince of Wales' Cup, and Hutton Trophy at racecourse. The 4th Regiment was exercised in regimental drill as well.

Friday, April 26.

Departure of troops and striking of camp.

CHINESE CAVALRY

From the 'Unveiled East,' by F. A. McKenzie (Hutchinson & Co.).

We learn regarding the modern development of the Chinese Army that their Cavalry training has surpassed all others (see pp. 219-220). 'A

regiment of Cavalry, mounted on little chestnut Chinese ponies, displayed the same qualities of discipline and training as the footmen (Infantry). They first did a clean bit of mounted Infantry work, advancing on foot in open order upon a position.

Then they went through an old-time Cavalry charge. They divided into two parts, each riding to opposite ends of the plain. Then they turned, and with officers to the front and swords drawn, they came straight at one another. Faster and faster they rode, nearer and nearer they drew, until the roar of the beating hoofs filled the air, and a great clash seemed inevitable. A mighty shout burst from either half.

At the last possible moment each side made a slight curve and the excited ponies tore by each other in safety. When the men rejoined the forces they practised *silent drill*, making the ponies gallop rapidly, *but so quietly that not the beat of a hoof could be heard!*

BULGARIAN CAVALRY

Bulgaria, being a mountainous country, is but little adapted to the employment of the horse, and does not furnish naturally trained horsemen. The men of the Bulgarian Cavalry, selected preferably from men of medium height, are hardy, and training is zealously carried out. The corps of officers is young, and is rather deficient of Cavalry experience in the higher ranks. Great progress has, however, in this regard been made for some years. As a rule they ride well. The non-commissioned officers leave a good deal to be desired as regards equitation, reconnaissance, and the drafting of reports. The corps of officers is recruited from the Military School at Sofia, to which are sent candidate officers of all branches of the Service. Candidates for the Cavalry only receive special equestrian instruction during the last year of the course. There exists no special permanent Cavalry School, but only courses organised twice a year at Sofia. Every year several Cavalry officers are sent to Cavalry schools abroad.

The horses are in a very satisfactory state. The Divisional Cavalry (six groups of two squadrons) are mounted on small, very hardy, Bulgarian horses, well accustomed to mountains. Cavalry regiments attached to Infantry divisions who would be specially employed on the Maritza Plains or in the Valley of the Danube, are mounted on big Hungarian horses, admirably suited for the service required of them.

The Cavalry of the Army consists of four regiments of four squadrons each and one Guards regiment of three squadrons.

According to the *Kavalleristische Monatshefte*, although the Bulgarian Cavalry from a Cavalryman's point of view cannot be compared to the Cavalries of the Great European Powers, it is, nevertheless, in a very satisfactory condition. It is animated in common with the whole Bulgarian Army, with a marked spirit of progress.

FRENCH CAVALRY—BRIDGING EQUIPMENT

The 'Veyry' light bridging equipment for Cavalry has been approved of. Each folding boat carries twelve to fifteen men. A raft of two boats will carry a field gun and limber, and ten to twelve men. Three folding boats make a bridge

70 mètres long, and one service wagon carries the whole equipment, with which each Cavalry regiment is to be supplied.

Mons. Veyry is the inventor of a most ingenious kind of boat, which has the great merit of being equally serviceable to all three arms in modern warfare. It consists of a simple collapsible boat, which can be carried on the back of a mule, and is of very light draught. It holds twelve men comfortably, on bracket seats. Not only is it put together and floated in a very short time, but it is also an ideal pontoon for a footbridge. In this way it can be adapted for many objects, thanks to a happy combination of parts, easily transported and capable of adjustment in a few minutes, so as to make a bridge of varying length and breadth, according to the nature of the stream, and whether it is required for transporting Infantry, Cavalry, or Artillery.

NEW METHOD OF DRESSING A HORSE'S FOOT

No. H. 518 Shoeing-Smith C. Baker, South African Constabulary, has invented a very ingenious and yet simple method for applying and retaining dressings to the sole of a horse's foot—the usual methods of doing so, *i.e.* bandaging, or enclosing the whole foot in a bag, having many disadvantages.

Baker takes a piece of thin sheet-iron and cuts it out the shape of the sole of the horse's foot, and about one-eighth of an inch smaller all round.

A small hole is then punched in this in the middle line, about an inch from the heel. An ordinary shoe is then slightly hollowed out on its upper and inner surface, and fixed on in the usual way.

The plate is then pushed between the hoof and the shoe, and runs easily in the groove formed between the hollowed-out shoe and the hoof.

The plate should be of a size just to clear the nails, so as to prevent its shifting from side to side.

Any dressing can be applied to the sole or frog, and this plate then pushed in over it, the space between the sole and plate being firmly packed with cotton wool.

The chief advantages of this over the ordinary methods of applying dressings are: Simplicity of construction; any farrier can make it.

Ease with which the part of the foot can be got at for treatment and examination, or cleaned and dressings applied.

The fact that it is unnecessary to remove and replace the shoe frequently.

When applied, dressings are not liable to move, and pressure over inflamed or tender parts can be relieved and regulated.

In many cases the horse can be worked whilst under treatment, as the plate protects the sole from being bruised, and, if well packed, dressings do not move, and the wound remains aseptic all the time.

When used on a fore foot the heel of the plate must be cut shorter than is necessary when used on a hind foot, in case of the horse over-reaching.

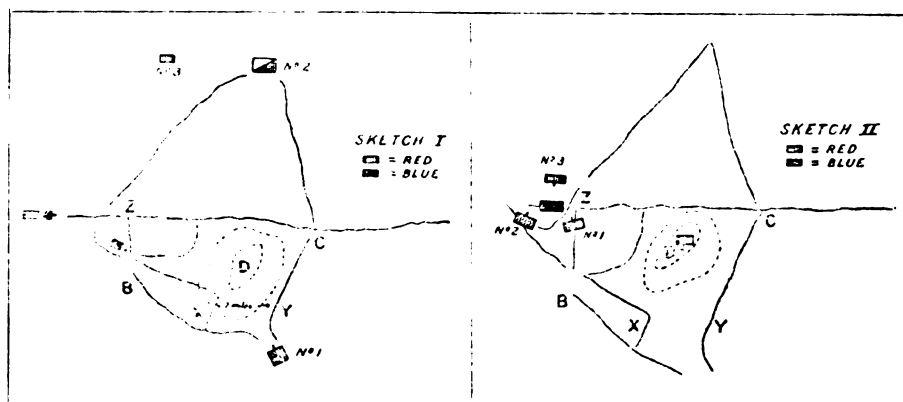
The inner side of the plate should not project beyond the shoe, lest the horse cut himself by brushing, and the edge should be turned up like the clinch on a shoe, at the side, to keep the plate from moving at all from side to side.

A MISTAKE IN RECONNAISSANCE

The following account of a bad piece of patrol work, which actually occurred at manœuvres, is interesting as showing how much may depend on a single patrol :—

The forces were roughly as depicted in Sketch I.

The Blue commander sent his Cavalry to get in front of No. 1 Red and block it, whilst he fought 2 and 3. During the night carefully selected officers' patrols were sent out to locate the Red forces, and Blue Cavalry marched to B early in the morning. On arrival at B, a captain, who had been in charge of one of these patrols, came galloping up and reported that the whole of Red No. 1 was moving along road Y. That he had counted and seen the regiments himself, and was certain. So Blue Cavalry dashed off to C, where nothing was found, and then moved to D and sent a squadron to B. This latter was knocked to one side, and the next thing that happened was as depicted in Sketch II. What had happened



was that the Blue main body had moved at two and a half hours later than it said it would, and arrived at Z, which happened to be the prearranged concentration point for the Red forces, just as these came up. Blue was taken completely by surprise, having done no scouting for itself, and the Cavalry were out of it. The error occurred through the officer who reported the Red No. 1 on road Y, having mistaken the road he saw them on, for he had really seen them on road X, which runs parallel to it at only two miles' distance, but leads in an utterly different direction.

MOUNTED CADETS

Under the direction of their C.O., Major Lloyd-Jones, the cadets of Cheltenham College have formed a mounted troop, and are making steady progress in equitation, horsemanship, and stable management.

We hear the cadets of Clifton College are following suit.

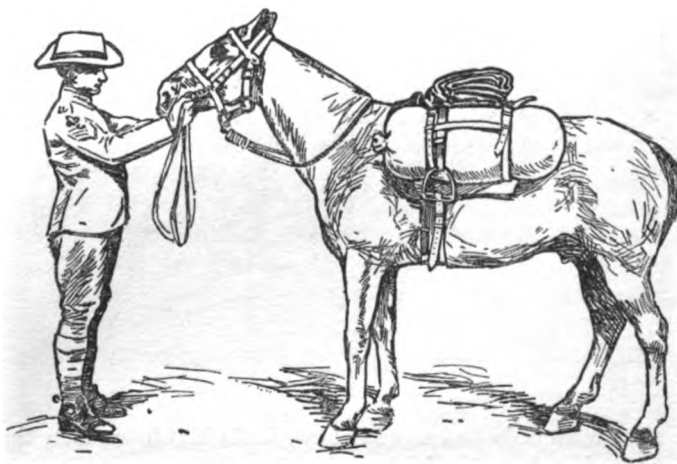
Some years ago the late Dr. Haig Brown, when Headmaster of Charterhouse, contemplated a similar line of training for the Carthusian cadets, but certain obstacles came in the way at the time.

It is to be hoped that other public schools, and schools in the Colonies, will follow suit.

KIT FOR SCOUTING PATROLS

Lieut.-Colonel Kennard, 5th Dragoon Guards, sends us some illustrated notes on kit for scouting patrols devised by Sergeant Johnson of that regiment. The idea seems practical and economical. As will be seen from the illustration, the forage bags are strapped up with strong straps of the ordinary rug-bundle pattern; the stirrups are brought up over the forage bag each side between the saddle and bag, and a broad strap with buckle at each end is then secured to the stirrup iron. A connecting strap is run between the fore and back ends of the bags through the front and rear arches of the saddle. The total cost in South Africa made by the regimental saddler is 12s. This would probably be cheaper in England.

Forage Bags.—The forage bags with straps for the use of patrols have been devised and arranged to easily fix on the regulation Cavalry saddle, and as an alternative to the present pattern of pack saddle, which is too heavy and cumber-



some, and moreover is totally unfitted for carrying grain for any long distance, especially if the journey has to be made quickly.

The regulation pack saddles are a continual source of delay during a long trek, caused mainly by the pack ropes, which by the continual jolting work off the ends of the sacks, no matter how carefully they are adjusted. The new method entirely remedies this, it being impossible for the straps to slip off the bags.

A considerable reduction in weight is also effected; as a matter of fact, the saddle and pack are only about half the weight of the same pack carried on the regulation pack saddle. This alone is an important item, as, the load being a dead weight on the horse's back, every pound saved in weight means a difference in the condition of that horse at the end of a day's march. Nothing distresses a horse more than the dead weight of a grain pack.

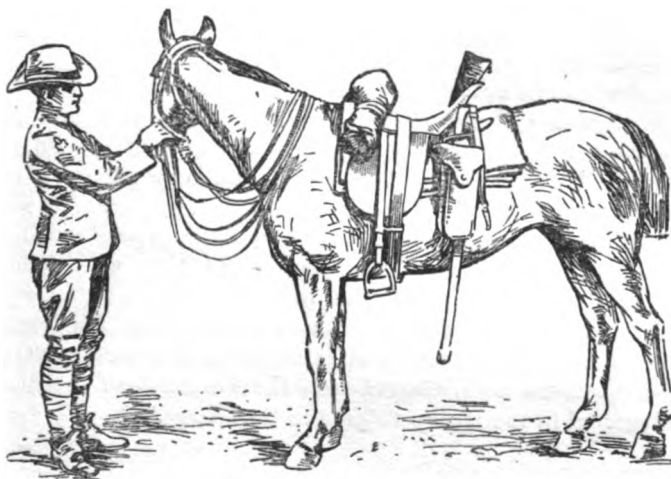
No special saddle being necessary, the bags can be changed from one horse to another in a few minutes. This is another advantage. With the pack saddle, changing horses means not only changing the loads but the saddles also, which is another cause of delay. With the new method, by changing the load from one

horse to another, say, every fifteen or twenty miles, a long journey can be got over much more quickly than if the pack saddle were used.

Once the bags are strapped on the saddle they give no trouble whatever, riding very firm; thus there is no danger of them rubbing the horse's side. They carry just as well when half empty. Grain, when carried in sacks on pack saddles, has a great tendency to work into the centre of the sack after proceeding a short distance. The connecting straps prevent this with the new forage bags.

The only precaution to be taken when grain is required is to take an equal quantity from each bag, and not from one bag only, so as to ensure the weight remaining equalised on the horse's back.

Each bag holds 60 lbs. mixed grain (mealies, oats, and bran) or 70 lbs. mealies. Thus a patrol of three men, with a spare horse carrying the forage bags (each of their riding horses carrying 10 lbs. grain in nosebag), and allowing 10 lbs. grain for each horse per diem, would be able to remain out for four days



before requiring any further supplies. If it were necessary for them to stay out longer, two or more horses might carry forage bags.

One blanket for each man can be carried across the saddle and strapped with two baggage straps to the steel rings on the pack straps. Their rations may be carried in the centre of the roll of blankets. Experience has proved that blankets rolled and carried in this manner do not move, or require any further attention after they are strapped on.

The complete pack—that is, forage bags, blankets, and rations—has been sent out on several long journeys, yet, notwithstanding rough usage, has proved very successful.

Spare Field Kit.—The spare field kit of a soldier is now packed in a leathern wallet and carried on second-line transport.

Scouts and despatch riders are often detached from their unit for some time, and consequently are unable to take advantage of this spare kit.

With the idea of always having such spare kit handy, straps have been attached to the wallet to enable it to be carried on the saddle. It has been

found that the best place to carry it is over the sword, as by carrying it there it counterbalances more the weight of the rifle and rifle-bucket on the other side. The strap at the top of the wallet is buckled round the back arch of the saddle, over the shoe-case strap. Strap must be of sufficient length to allow the wallet to hang below the hilt of the sword. The scabbard is pushed through the loop at the back and bottom of the wallet and holds it in its place, preventing it from swinging about with the motion of the horse when on the march.

The strap and loop have been found to answer very well.

In the wallet each man carries : one shirt, one pair drawers, one pair socks, maps and notebook. Tin billy (holding $1\frac{1}{2}$ pint) in which he carries tea and sugar in small bags.

Thus scouts with the new forage bags at their disposal, and carrying their spare kit in the wallets on the saddles, are practically self-contained and independent of wheeled transport.

BALACLAVA

A correspondent points out :—

'The account of the Heavy Charge at Balaclava, in your last number, is liable to misconception as regards the numerical strength of the Brigade. The author has taken "Three Hundred," the number so often mentioned in connection with Scarlett's name, and has omitted to refer to the numbers of the remainder of the Brigade. Scarlett's "Three Hundred" consisted of one squadron of the Inniskillings and two squadrons of the Greys, and they were followed into action, in very little more time than it takes to write it, by the other squadron of the Inniskillings and two more of the 5th Dragoon Guards, another three hundred men; while in the next few moments after these the 4th Dragoon Guards and the Royals, two squadrons each, charged into the Russian flank—making a total of about nine hundred in the Heavy Brigade in the charge.'

OBITUARY

Colonel Ronald Kincaid Smith, late Commanding 4th Hussars, died at Newmarket on November 2, at the early age of forty-eight, after undergoing an operation for appendicitis. An excellent type of Cavalry officer, throughout his career keen at his work, and enthusiastic over anything connected with sport, whether hunting the regimental pack of hounds at Ballincollog, riding his horses at the Grand Military meetings at Sandown, and in point-to-point races, or playing polo for his regiment in various tournaments, he always strove to do his best, and he stuck to his regiment throughout his career, with the exception of the Nile Expedition, 1884-85, when he served with the Light Camel Corps, taking part in the operations of the desert column, and being present at the battle of Abu Klea. He was well known and much respected in the racing world, his two best racehorses being Melayr and Succour, which both won good races for him.

The death of Lord Chesham, while hunting with the Pytchley Hounds on November 9, cast a gloom over the whole hunting world, where he was so well

known and universally respected. Although devoted to sport he never neglected his many duties, and was always an enthusiastic soldier.

He was educated at Eton, entered the Army in March 1870, and served successively in the Coldstream Guards, the 10th Hussars, and the 16th Lancers, from which he retired as a captain in 1879, being subsequently appointed to the Reserve of Officers. After his retirement from the Army he obtained a commission in the Bucks Yeomanry (the Royal Bucks Hussars), and was Lieutenant-Colonel of the Corps from 1889 till 1902, since which date he had been Honorary Colonel of the regiment. Upon the breaking out of the South African War Lord Chesham volunteered for active service and helped to raise the Imperial Yeomanry, being appointed commandant of a battalion, with the rank of Brigadier-General in the Army, and afterwards Inspector-General of Imperial Yeomanry, graded as a Major-General on the Staff. He took part in the operations in Orangia, in the Transvaal west of Pretoria, and in Cape Colony north of the Orange River, including the actions at Venterskroon, at Lindley, and Rhenoster River, being mentioned in despatches, and receiving for his distinguished services the Queen's medal with three clasps and the King's with two, and being awarded the K.C.B. In 1902 he was appointed Honorary Major-General in the Army and Inspector-General of Imperial Yeomanry, Great Britain. He was Master of the Buckhounds from 1900 till their abolition the following year.

It may truly be written of him that he was indeed an officer and a gentleman, kind, generous, and courteous to all, no matter what their station in life might be, and the world of sport is all the poorer for the loss of one who was a typical sportsman in the truest sense of the word.

Colonel Harold George de Pledge, commanding the 19th (Alexandra, Princess of Wales's Own) Hussars, died on January 2, suddenly, of heart failure, after a long illness. He entered the Army from the Militia as a lieutenant in the 19th Hussars in 1882, and two years later saw his first active service in the Soudan Expedition, taking part in the engagements of El Teb and Temai, and receiving for his services the medal with clasp and the Khedive's bronze star. He was also with the Nile Expedition of 1884-5, and was in the actions of Abu Klea and Metammeh, which obtained for him two clasps. In the South African War Colonel de Pledge participated in the earlier operations in Natal, fought in the action at Lombard's Kop, and was engaged in the defence of Ladysmith. Later he was on staff service as aide-de-camp to Major-General the Earl of Dundonald, commanding a mounted brigade, and was present at the actions of Laing's Nek, Belfast, and Lydenberg, and in those in the Orange River Colony. Mentioned in despatches, he became major and brevet colonel in June 1901, and was awarded the Queen's medal, with five clasps, as well as the King's medal, with two clasps. Since July 1905, he had been in command of the 19th Hussars.

Captain Alexander Tweedale, late 1st Bombay Lancers, died early in December at the advanced age of 101. He was in his time hard to beat as a horseman, but breaking his thigh a year or two ago, he gave up riding for motoring.

O. LUMLEY, *Colonel.*
Editor.

SPORTING NOTES

RACING

THERE were not so many soldier riders as usual at the Aldershot November races. The Open Military Steeplechase, however, produced a good field of eight runners, and was won by Mr. R. C. de Crespigny on his horse Warner, with Mr. G. F. Hutton's Minnie (Mr. Walwyn), second, and Mr. G. F. Hyde's Campamento (owner), third.

Mr. R. C. de Crespigny rode a good race.

RACING IN SOUTH AFRICA

Major J. Cooper, well known in the A.V.D., was second for the Johannesburg Spring Handicap with his b. f. Tirkvallen, four years; Brigadier-Gen. T. G. Hickman's ch. h. Wrought Iron, six years, was also second for the Flying Handicap at the same meeting.

POLO

The newly formed club at Cannes commences its season about January 15, 1908, and will last until March 3. There is a full-sized ground at Mandelieu, near the racecourse and golf club, and ponies will be stabled and foraged by the club at a regular charge.

An important conference of polo clubs was held at the London offices of the Polo and Riding Pony Society for the purpose of considering the question of protesting against the existing rates of the railway companies for the conveyance of polo ponies travelling to and from matches, and to appoint a committee to bring the subject before the railway companies. Mr. A. M. Tree (Warwickshire) was in the chair, others present being Lord Valentia, Major Egerton Green (manager of Hurlingham), Captain E. D. Miller (polo manager, Roehampton), Mr. C. D. Miller (manager, Roehampton), Captain G. Phipps Hornby, Mr. Tresham Gilbey, Colonel Sanders Darley, Mr. H. E. Lambe, Mr. S. Mason, Mr. W. Walton, Mr. Auriol Barker, and Mr. Digby Barker. A statement putting forth the opinions of polo men throughout the country on the questions before the meeting was submitted by Mr. A. B. Charlton (secretary), and in the end it was decided to ask for a conference with the railway representatives at which uniformity of rates might be suggested.

HURLINGHAM POLO CLUB

REVISED RULES AND REGULATIONS

1. The height of ponies shall not exceed 14.2, and no pony shall be played, either in practice games or matches, unless it has been registered in accordance with the rules of measurement.

10. The duration of play in a match shall be one hour, divided into six periods of ten minutes each, with an interval of three minutes after each period, except the third (half time), when the interval shall be five minutes. The five first periods of play shall terminate as soon as the ball goes out of play after the expiration of the prescribed time, any excess of time in any of these periods due to the ball remaining in play being deducted from the succeeding period. 'If the ball does not go out of play at the expiration of any period of ten minutes the umpire may, at his discretion, stop the game, and, on play being resumed after the usual interval shall throw in the ball at the place where the game was stopped towards the nearest side of the ground in a direction parallel to the two goal lines, and between the opposing ranks of players. *N.B.*—The umpire shall not stop the game when the ball is within thirty yards of either goal unless it is unavoidable, and it is desirable that the game shall be stopped when the ball is in such a position that neither side shall be favoured thereby.' The last period shall terminate, although the ball is still in play, at the first stroke of the final bell, wherever the ball may be. In case of a tie the last period shall be prolonged till the ball goes out of play, and if still a tie, after an interval of five minutes, the ball shall be started from where it went out of play, and the game continued in periods of ten minutes, with the usual intervals, until one side obtain a goal, which shall determine the match.

19. Ends shall be changed after every goal, or, if no goal have been obtained, after the third period. 'After a goal has been scored, the game shall be restarted from the centre of the ground as described in Rule 9.'

21. 'No player shall play with his left hand, except left-handed players registered at Hurlingham during 1907.'

22. No player shall ride dangerously, as for example: '(a) Bumping at an angle dangerous to a player or his pony; (b) zigzagging in front of another player riding at a gallop; (c) pulling across or over a pony's forelegs in such manner as to risk tripping the pony, &c.'

Penalties

Penalty 1. A free hit at the ball from a spot '50' yards from the goal line of the side fouling, opposite the centre of goal, or, if preferred, from where the foul occurred; all the side fouling to be behind their back line until the ball is hit or hit at, but not between the goal posts, nor when the ball is brought into play may any of the side ride out from between the goal posts. None of the side fouled to be nearer the goal line produced than the ball is at the moment it is hit or hit at.

Penalty 3. The side fouling take the ball back and hit it off from behind their own goal line, 'from the centre of goal,' none of the side fouled to be within 30 yards of the goal line produced, the side fouling being free to place themselves where they choose.

Penalty 5. In the case of failure to correctly carry out (a) penalties 1, 2, and 4, by the side fouling—a second free hit at the ball if a goal has not been scored; (b) penalty 1, by the side fouled—a hit out from behind by the other side from the centre of goal, the defending side being free to place themselves where they choose'; (c) penalty 3, by the side fouled—a second hit out from

behind; (d) Rule 13, by the attacking side—a second hit out from behind; (e) when penalties 1, 2, 3, and 4 are not properly carried out, or Rule 13 is infringed by both sides simultaneously, the ball shall be hit or hit at, as the case may be, from the same spot as before.

Rules of Measurement

6. A pony shall not be measured if he appears to have been subjected to any improper treatment with a view to reduce his height, or if he is in an unfit state to be measured. If a pony is rejected under this rule he shall not be presented again for measurement until the following season, 'and the name of the owner of such pony shall be reported by the official measurer to the Hurlingham Polo Committee.'

15. 'Certificates of height issued by the Indian Polo Association and South African Polo Association will be accepted at Hurlingham provided the standard height in those countries does not exceed 14·2.'

16. 'The official measurer is authorised to give 14·1 certificates for India.'

17. Any person who is dissatisfied with the determination arrived at may, by a written application presented to the manager within seven days from the time of measurement, apply for a remeasurement. Such remeasurement shall take place in the presence of one member of the Polo Committee, and on the first convenient day which may be appointed, and his decision shall be final. 'The charge for measurement on appeal shall be according to the usual scale.'

Subject to local alterations, except in the United Kingdom.

These rules came into force on January 1, 1908.'

POLO—INDIA

The final of the Poona Junior Tournament was between the 34th Poona Horse and the Poona Gymkhana, the former winning by five goals to one. 34th Poona Horse: Mr. H. C. Studdy, Mr. E. St. C. Gray, Mr. H. A. Hildebrand, Captain J. H. McDavie. Poona Gymkhana: Captains D. H. Talbot, H. Wright, W. A. Light, and J. Lucas.

The Quetta Open Tournament resulted in an easy win for the Staff College, the 1st Battalion Royal Warwickshire Regiment being the runners up.

The Naini Tal Tournament secured a large entry, which included the Royals and 17th Lancers. The final, however, rested with the 4th Cavalry and 1st Battalion Durham Light Infantry; the latter scratching, the 4th Cavalry were the winners.

The Poona Open Tournament was a victory for Jodhpur, who, in the final, after a capital game, defeated the Poona Horse by three goals to one. The winning team was composed of native players, including the Maharaja of Jodhpur (back).

The Hyderabad Tournament resulted in yet another victory for the Golconda team, who, in the final, easily defeated the 20th Deccan Horse.

The Jubbulpore Tournament for the Begum of Bhopal's Challenge Cup was won by the 38th Central India Horse, represented by Major J. C. D. Pinney, Lieut. G. Lewis, Captain R. E. T. Hogg, Captain H. K. Barr (back).

SPORTS

The 14th Hussars held their Regimental Sports at Bangalore. Major Tickell, D.S.O., proved himself the best commissioned man-at-arms, Major Stephens took the officers' tent-pegging, and Roughriding Sergeant-Major Carnegie was easily best man-at-arms amongst the N.C.O.'s and men. These are all well known for their prowess at the Military Tournaments held at the Agricultural Hall in London.

In the tent-pegging for native troops, the wonderful tent-peggers of Gordon's Horse defeated the Imperial Service Lancers.

THE OLYMPIC GAMES

LIST OF CONTESTS

Lieut. Ernst Killander, 2nd Royal Life Guards, Sweden, has been in London making arrangements for the visit next year of a large number of Swedish athletes for the 1908 Olympiad. He gave a great account of the wonderful progress which athleticism of all kinds has made in the Swedish Army during recent years. There is a military club in each regiment, and a central military club in Stockholm open to all regiments.

The British Olympic Council has issued the programme for the rowing, athletic, swimming (diving and water polo included), and gymnastic competitions which will take place next year in England.

The rowing will be at a regatta arranged over a mile and a half course at Henley on July 28 and following days, when the events—under the auspices of the Amateur Rowing Association—will be as follows: For Eight-oars, Four-oars, Pair-oars, and Sculls. The number of entries for each event from each country must not exceed two.

A splendid programme of athletics has been arranged to take place at Shepherd's Bush in the new Stadium in July. The competitions are:—

1. 100 Mètres Flat (109·3 yards).
2. 200 Mètres Flat (218·6 yards).
3. 400 Mètres Flat (437·2 yards).
4. 800 Mètres Flat (874·4 yards).
5. 1,500 Mètres Flat (1,639·5 yards).
6. 110 Mètres Hurdle (120·2 yards).
7. 400 Mètres Hurdle (437·2 yards).
8. 3,200 Mètres Steeplechase (3,497·6 yards).
9. Five Miles Run (8 kilomètres).
10. 80 Miles Walk (16 kilomètres).
11. Marathon Race, 25 miles (40 kilomètres).
12. Standing Broad Jump.
13. Standing High Jump.

14. Running Broad Jump.
15. Running High Jump.
16. Hop, Step, and Jump.
17. Pole Jump.
18. Hammer Throwing.
19. Shot Putting.
20. Tug of War (teams of eight).
21. Three Miles Team Race (4·8 kilomètres); five to run, three to count.
22. 3,500 Mètres Walk (3,825 yards).
23. Discus (1) Free style; (2) as at Athens.
24. Javelin (1) Free style; (2) with the javelin held in the middle.
25. Relay Race, 1,600 Mètres, Teams of four; Two at 200 mètres, one at 400 mètres, one at 800 mètres.

Each country competing shall be allowed to enter not more than twelve competitors for events 1 to 19 inclusive and 22, 23, and 24, No. 20 three teams of eight each, Nos. 21 and 25 one team each.

The swimming events, for which entries from each country are limited to twelve, are as follows:—

- 100 Mètres (109·3 yards).
- 400 Mètres (437·2 yards).
- 1,500 Mètres (1,639·5 yards).
- High Diving.
- Fancy Diving.
- 200 Mètres Race for teams of four (218·6 yards).
- 200 Mètres Breast Stroke (218·6 yards).
- 100 Mètres Back Stroke (109·3 yards), and
- Water Polo.

In the gymnastic section individual competitions comprise voluntary exercises; horizontal bar, swinging movements; horizontal bar, slow movements; parallel bar, slow and swinging movements; rings, steady; rings, flying; pommelled horse, placed sideways, quick movements; and rope climbing.

The maximum number of competitors from each country for the individual competitions is twenty, and every competitor must take part in every item. The gymnastic programme also contains team competitions for teams of not less than sixteen or more than forty, and non-competitive displays open to women.

THE INTERNATIONAL HORSE SHOW

The directors of the International Horse Show have definitely decided to hold the 1908 show at Olympia on June 18 to 27 inclusive, beginning on the Thursday of Ascot week and continuing during the whole of the following week. All arrangements to this end are now complete. On the organisation of the show a sum of £30,000 will be spent. The prize list, containing 150 classes, is almost complete. The total prizes amount to £10,000, this being the largest sum ever offered at any horse show in the world. The French, Spanish, Dutch, and Belgian breeders all propose to offer challenge cups as a mark of their interest in the international aspect of the show.

THE INTERNATIONAL HORSE SHOW, BELGIUM

An international championship for military horses will be held at Brussels in May 1908. The object of this meeting is to encourage sensible training of horses for military purposes, coupled with the true principles of equitation, and not to exact exceptional qualities from the horses themselves. There are valuable prizes offered amounting to 15,000 frs. M. A. Dupinch, Secrétaire de la Société Royale Hippique de Belgique, 33 Rue des deux-Églises à Bruxelles, will be glad to furnish any information.

FOOTBALL

The Irish Army Association Cup.—To save travelling expenses the teams have this year been divided into four districts for the first and second rounds, viz., Dublin, Cork, The Curragh, and Belfast.

The Hon. Secretary is Captain E. F. M. Urquhart, Black Watch, Superintendent of Gymnasia, Dublin.

This season's competition for the Army F.A. Cup, attracted a record entry of eighty-eight, seven more than last year.

The results of the first round for the Cavalry Cup were as follows:—

2nd Life Guards . . . 1	1st Life Guards . . . 0
Royal Scots Greys . . . 3	Royal Horse Guards . . 1
7th Dragoon Guards . . . 3	20th Hussars . . . 1
3rd Dragoon Guards . . . 4	11th Hussars . . . 1
21st Lancers 3	7th Hussars 0
5th Lancers 2	8th Hussars 1

The 18th Hussars, 19th Hussars, and 16th Lancers drew byes.

FOOTBALL IN INDIA

The final for the Bombay Rovers Tournament was between the 2nd Battalion East Lancashire Regiment and the 6th Dragoon Guards, the former winning by 3 goals to 0.

The final of the Calcutta Challenge Cup resulted in a tie between the 1st Gloucester and the 1st West Riding Regiment (the holders). The replay produced a fine match which the holders won by a dropped goal and a try to a try. Each battalion of the West Riding Regiment has now won the trophy twice.

BOXING

The first special night of the season at the National Sporting Club was chiefly comprised of matches between boxing champions of the Services. Corporal J. R. Sunshine, Royal Fusiliers (heavy-weight champion for the past three years of the Army and Navy), fought Edward Dickson, the champion of Scotland. The conditions were to fight ten rounds. Dickson took the lead, but in the third round Corporal Sunshine knocked him clean out with a terrific

blow. Another interesting match was between 'Curley' Watson (late R.N.) and Private J. Kileen, Irish Guards. This was a close fight for fifteen rounds, when Watson was declared the winner.

The 3rd Dragoon Guards gave an excellent tournament in their riding school at the Curragh. Privates Pope, Gardiner, and Warner upheld the reputation of the regiment by carrying off the chief events after some capital bouts. There was a large attendance, which included Brigadier-General Lindley.

The 5th Lancers, who have succeeded the 18th Hussars at York, commenced the season with a good tournament, at which the chief contests were won by Private Temple, 5th Lancers, and Private Haward, late 18th Hussars.

The great interest taken in boxing in Dublin was shown by the crowd which packed the large gymnasium at Portobello Barracks, when the military in Dublin gave an excellent entertainment, including several special contests.

The greatest interest was displayed at the National Sporting Club on December 2, when Gunner Moir and Tommy Burns fought for the World's Championship. Burns, the Canadian, won after ten rounds, Moir being apparently quite outclassed.

BILLIARDS

The Army Billiard Championship, promoted by Messrs. Thurston, has met with a good reception in the Service. The total number of entries were 331, being 165 of the rank of sergeant and over, and 166 below.

J. WATKINS YARDLEY, *Lieut.-Colonel,*
Sporting Editor.



LONG DISTANCE RECONNAISSANCE

The results of the competition for the badges presented to the various brigades by Lieut.-General Baden-Powell were as follows:—

First Cavalry Brigade, 16th Lancers' Patrol under Captain A. Macarthur-Onslow.

Fourth Cavalry Brigade, 7th Hussars Patrol under Lieut. W. Paget-Tomlinson.

The badge here shown has been forwarded to each member of the winning teams.

The Second and Third Brigades do not appear to have carried out the competition.



THE CAVALRY JOURNAL

APRIL 1908

THE EDITORSHIP

This month the 'Cavalry Journal' loses the valuable services of Colonel Hon. O. Lumley from its staff. For the past two years, in fact from its introduction, Colonel Lumley has devoted himself for the good of our branch in the exacting work of editing our Journal, and he has done so with conspicuous success. He now hands it over in good order to his successor, with the satisfaction of knowing that his labours on behalf of the Cavalry have been highly appreciated throughout the branch, and that we of the staff owe him a debt of gratitude for all that he has done to make the Journal a success. His services throughout have been entirely honorary.

In future the Editorship will pass to Colonel W.H. Birkbeck, C.B., C.M.G., and the Staff of the Cavalry School, which has much up-to-date matter at its disposal, and is also in constant touch with all Cavalry Regiments. They will be assisted by Lieutenant Bertrand Stewart, West Kent (Q.O.) Yeomanry, who has lately contributed a valuable addition to Cavalry literature.

The management of the Journal will remain as heretofore, and Officers who may desire to contribute articles or notes should submit them to the Managing Editor, as also all matters relative to business, subscriptions, &c.; in fact all communications should be sent to the Managing Editor, 'Cavalry Journal,' Royal United Service Institution, Whitehall, S.W.

ARTHUR LEETHAM,

Managing Editor.

VOL. III.—No. 10.

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CAVALRY ON THE BATTLEFIELD

By 'EQUES'

Shows that energy and will-power in the tactical handling of Cavalry acting with other arms on the battlefield are all-important—The necessity for officers of all arms appreciating the uses of Cavalry—Great possibilities are open to well-led Cavalry in modern war—The tendency to employ Cavalry on wide movements on the flanks may militate against its proper rôle of assisting the Infantry at the decisive moment—The official history of the South African war in relation to the handling of Cavalry on the battlefield.

ALTHOUGH the uses of Cavalry are generally admitted for the carrying out of the services of security and information, the employment of Cavalry on the battlefield has come to be considered by many as a thing of the past.

Yet one of the very first and greatest principles of tactics is the one that success in battle largely depends on the *close* and *effective* co-operation of all three arms. And though the close co-operation of Artillery and Infantry is carefully studied and often discussed, the question of how Cavalry may be brought into play also has, as a rule, received but little consideration. The Cavalry lessons of many modern battles are to be gathered not by seeing what the Cavalry did, but what it might have done! For the Generals engaged either neglected to use their Cavalry at all, or, if using it, did so as a rule without the least regard to the only conditions that are essential to its successful employment. They had not sufficiently studied it to know its power and its limitations. Thus the Cavalry emerged from one war after another with a diminished prestige. And yet how often golden opportunities were offered to Generals to employ their Cavalry to bring off some great coup, and even once or

twice to use it to inflict or complete a crushing blow, after the manner of Napoleon !

And why is this ? Because very few men are great tacticians. The greatest tactician, as also the greatest strategist, was Napoleon. And it was the close co-operation of all three arms that he so thoroughly understood. He understood the time for and the method of the employment of each arm, and the close co-operation of all three to attain one great object—victory, and that is the essence of all tactics.

The possession of a good firearm by the Cavalry itself has of course enormously increased its power and uses for dismounted work, and during the battle even, Cavalry may be able to employ this method of action also very effectively under certain circumstances. But the conditions which chiefly go to make the success of a Cavalry charge possible are still what they were in Napoleon's day : (1) Previous preparation by fire and all its consequent demoralisation of the enemy, accompanied always, if possible, with the *close* support of rifle and artillery fire on the enemy, up to the last moment before the shock ; (2) Surprise. It will often be possible to combine both—demoralisation and surprise—before launching the Cavalry to the attack. If so, so much the better.

DEMORALISATION

None of those who have been through the South African or any other campaign, or have studied the modern battles, can deny that the moment does come when the best Infantry will become demoralised. More especially is this the case nowadays, when the long range and rapidity of fire, and the much longer duration of the modern fight, first of all tends to physically exhaust men, and then to unnerve them. And when once you have your men physically exhausted and thoroughly unnerved, we know how one *push* will carry them away, what the threat even of an advance by any formed body, especially if from some unexpected direction, can do to men in such a state.

This state of nervous exhaustion—otherwise demoralisation—is reached when one side or the other has obtained a superiority of fire. But before this superiority is gained, in any combat between well-matched foes, there comes the crisis of the fight, when anything will turn the scale between a great victory or a great defeat.

It is probable that the superior energy and will-power of one man, the leader, will decide the day. If at such a moment a leader has had the skill to assemble a force of Cavalry (the larger the better, for great blows are never given with insignificant numbers) near the flank of the opposing Infantry, and he has the energy and determination to launch it to the attack, then such an attack will stand an exceedingly good chance of reaping a very great success.

SURPRISE

To bring off a surprise nowadays against well-trained troops is certainly harder than it used to be, for long-range fire makes it necessary to take up one's preliminary positions at far greater distances than used to be necessary. But this applies more to the opening stages of the fight than it does to the final stages, where the opposing Infantry are lying within six hundred yards, perhaps three hundred yards, of each other with a storm of shell and bullets sweeping over their heads. Everyone's head is kept very low under these unpleasant circumstances, and the range of vision is in consequence very limited, and also eyes are only turned in one direction, namely, on the enemy directly opposite. It is *then* that bodies of Cavalry can be brought up into favourable positions, making of course all use of the ground and also finally occupying (unless they are coming up at once for a charge) some covered and sheltered spot, within easy reach of the opposing Infantry they wish to charge, where they can wait for the favourable moment, and be near enough to seize it. This is what is often called 'a position of readiness.'

Having remembered his Cavalry and directed them into a favourable position for the purpose of closely co-operating with his Infantry, the General conducting the attack may send his own orders to them for the attack when he judges the right moment has come, but this should not excuse or deter the Cavalry commander from seizing any favourable chance that he may see.

It is often said that no Cavalry could charge the present quick-firing artillery or the magazine rifle. That may be quite true, if you can imagine such an absurdity as Cavalry entering on a single-handed duel with either of the other arms.

But is such a crude conception war—is it tactics?

There are guns and Infantry co-operating on your side also. Will the hostile guns be drawn up in the open where they have a clear view over all the neighbouring country? If so, your own Artillery ought to make short work of them, and it will only be necessary to send in a few horsemen 'to pick up the dead and wounded birds.'

No, the guns will often be driven to occupy positions behind crests, where if they are safer from hostile Artillery fire, they are on the other hand more liable to surprise.

The Infantry also (in continental armies composed now of very young soldiers) will usually be lying 'very low' under a storm of bullets.

One must look deeper for the reason of the success or failure of Cavalry attacks in battle than at the efficiency of arms only.

How can you account for the complete failure of many Cavalry attacks on Infantry a hundred years ago, when they were armed only with flint-locks, and the occasional success of such attacks in more modern times when they are armed with a quick-firing rifle?

The real reason lies in the tactical handling, and that depends on the leaders.

Even a hundred years ago, a charge executed without surprise, without any manœuvre, in a single block and not in

successive lines, on intact Infantry, well under control of their leaders, was condemned in advance to complete failure.

The truth is that at no period have Cavalry been able to get home against intact Infantry; and that at all periods—now as much as ever—have the Cavalry swept over an Infantry surprised or worn out.

ENERGY AND WILL-POWER

The question of armament is secondary: the charge has been successful or a failure accordingly as it has been tactically well or badly led. Cavalry is subject to the universal law of war, which does not deal with systems or armament, but with *energy* and *will-power*. This energy and will-power, which must be possessed by *all the leaders*, and the men, is summed up in the expression 'La volonté à vaincre.' Napoleon's troops, of all arms, understood this well. They knew that war was a sacrifice and that to go into battle is to face death—not necessarily inevitably, but voluntarily.

One must make up one's mind to this; and after all this resolution is the wisest and most prudent, because those only are able to conquer who, beforehand and deliberately, are going to hold their lives cheap.

These are not phrases, they are facts.

Look at the losses among the German Cavalry in 1870–71.

Out of 63,000 Cavalry who crossed the frontier, the total losses were 8,000. And half these men fell on the one battlefield in which they were employed, *i.e.* Rezonville.

Now look at some of the losses among Napoleon's Cavalry, and judge if it is the question of armament only that has made the employment of Cavalry in battle of late years so rare. In the single battles of Eylau and Essling, the reserve Cavalry lost as many men in one day as the German Cavalry in eight months of war.

From this I think we can deduce that it is, above all, necessary that leaders should be *determined to employ*, and

capable of leading, the Cavalry under their command, and that losses must be expected and must be faced.

And if these conditions are borne in mind, and are sought for, and are not overlooked, Cavalry can yet play an important part in helping the Infantry in the actual attack or defence of a position.

These may almost be platitudes, but platitudes in themselves don't go for much in getting men to act on them. There must be study of actual war: the subject must be thought about and considered if you expect to see any fruits being produced on the battlefield from any military principle whatever.

And Cavalry officers of all nations during the last sixty or seventy years have been as ignorant of the conditions governing the successful employment of their arm as have the other officers of the army. The strictures which Hœnig passes on the German Cavalry were true of the Cavalry of all countries. Talking of the Cavalry Divisions in 1870 he says: 'These masses of Cavalry were in no way tactical, but only numerical bodies; and this is not all, their commanders too were no tacticians, but merely drills.' And this rage for 'drill' as opposed to, and as a substitute for, all *tactical* training has seized hold always of the British Cavalry, more than that of any other nation perhaps.

See Tomkinson's remarks written nearly a hundred years ago about our Cavalry in the Peninsula and their peace training.

But I think and hope different ideas now reign and the training is on sounder lines.

TRAINING OF THE THREE ARMS

Officers of *all arms* must understand and appreciate the uses of Cavalry on the battlefield, and this question might be considered with advantage much more than it is in the training of both Infantry and Artillery, and the three arms might be trained to work together much more than is now the case during the time of squadron and company training. Some day we may see a General who will understand both the strategical employment

of Cavalry, as Napoleon did, and the methods of their co-operation on the battlefield, and it will then be apparent how useful this weapon in the military armoury can be.

Infantry is *the* arm on the battlefield. It is really the Infantry that must win the battle. The other arms are merely the accessories and assistants. The co-operation of the guns is necessary during the preliminary stages of the attack, to prepare the way for the attacking Infantry, and in the later stages, by massing the fire of every gun in a comparatively small space, to even 'blow a hole through' the enemy's line, to enable the assault to get on.

So with the Cavalry. It is only the accessory of the Infantry. It can only assist. Its charges and its action will not alone carry the enemy's position, nor should it ever be employed with such an object.

The action of Cavalry during the battle must be guided by the *only* thought that it must forward the success of the Infantry by every means in its power.

The Cavalry must therefore keep *in touch* with the Infantry, keep fully acquainted with the course of the action, and have exact information of all that goes on on the enemy's flanks, and in his rear also, if possible.

And it must remember that in order to help its own Infantry to win the battle, the real and main object of its own attack is the enemy's Infantry.

It may have to fight the enemy's Cavalry first. But that is only a means to an end. The Cavalry only does that in order that the field of its operations may be clear, and that it may be at liberty to get into the best positions to attack the hostile Infantry. That is 'the end.' To break down the hostile Infantry at some one point is the decisive stroke of the battle, and on that one point—namely, on the Infantry there—every possible man of all three arms should be massed.

The way the principles that are essential to the successful employment of Cavalry in battle were overlooked has resulted

in the endeavour to find employment for it not only by using it solely on the flanks, which is sound enough in some ways, but in very wide and extended movements on the flanks.

Certainly the larger masses of Cavalry will usually be employed on the flanks, but *not wide* on the flanks, *not* out of touch with the other arms, *not* out of reach of the *decisive moment* and the *decisive point*.

This tendency requires carefully guarding against and checking. In almost every scheme at manœuvres or staff rides one finds the Cavalry sent off on some extended move against the enemy's rear. If both the Cavalry are so employed, a little separate duel often takes place far away from the point where the great *decision* has to be come to, and the Cavalry is then not present to assist in making this decision a successful one. For even if it succeeds in defeating the hostile Cavalry, the struggle may take place so far from the decisive point that time and space alone may prevent the victorious Cavalry from being up in time to be of the slightest use. I quite admit that, in order to assist in the great and decisive attack, it will be necessary to first overcome the hostile Cavalry, if it is present and is aggressive, in order to be free to co-operate with the Infantry.

But if the hostile Cavalry is by good fortune absent on some wide turning movement, one should most carefully avoid launching one's own Cavalry after them. Of course scouts and officers' patrols must be far out on the flanks, who can detect, watch, and give warning of these extensive turning movements, and, if necessary, detachments must be sent to check and delay them. But these detachments might possibly consist of one or two squadrons only, especially if there is any ground which is favourable for defence and delay, such as a river, &c.

The one thing that the Cavalry must avoid at any cost is the mistake of letting the main battle go on without taking any part in it—of remaining hypnotised, so to speak, fighting or merely facing the opposing Cavalry.

Although the Cavalry might be moving about and galloping

all over the country, such action would most truly constitute 'inaction' on the commander's part.

Cavalry is (when anyone thinks of it who knows anything about it) often justly blamed for thinking only of the enemy's Cavalry and totally neglecting the great part which it could and should play in the main battle, in co-operation with the other two arms.

And it is in *close co-operation* with the Infantry that the real rôle of Cavalry in battle lies, and the mass of the Cavalry told off to assist and co-operate must remain in close touch with the Infantry throughout, and not go wandering off on petty enterprises of its own, which never lead to any decisive result as far as the main battle is concerned.

Napoleon never admitted that there could be for the special arms—Artillery and Cavalry—special periods in the battle.

There was no fighting in water-tight compartments, no duels outside the great main battle.

Much is also talked of Cavalry pushing into the enemy's rear to harass him, and cut off his retreat when beaten.

But this is unsound. The first and most essential thing to gain is the victory, and this victory must be as complete as possible. On any hard-fought field, it will require the participation of every available man, *at the decisive point*, to gain the victory.

And even if you succeed in beating your enemy without the active intervention of your Cavalry, it is *most important* to turn the beaten enemy into a routed mob. You can only do this if the enemy are *immediately* hustled, attacked and pursued; and it is just at this psychological moment that the chances of a great Cavalry charge are most propitious. If men are not kept on the run, and every advantage taken of their temporary demoralisation, they very quickly recover themselves.

It is at the first moment of their being driven out of a stubbornly held position, when they are still under not only the moral demoralisation of defeat, but also still under the close fire

of the victorious rifles and artillery, that the Cavalry can turn their defeat into a rout.

But to do this the Cavalry must be close handy, and on the watch for the moment. This cannot be the case if it is working on some mission of its own miles away from the decisive point.

Of course you may say that during the great struggle the Cavalry under these circumstances is doing nothing. But so are your Infantry Reserves, possibly also your Artillery Reserves if you have kept any. You keep them to use at the *right* moment. So must the Cavalry be kept for use at the *right* moment.

It is by the employment of force at the *proper* moment that battles are won, not by employing it simultaneously all over the field. Simultaneous employment of troops everywhere by no means spells unity of action, it often spells dispersion.

Cavalry employed on such lines will not in any sense be inactive, though men and horses may be quiet and resting, so as to be fresh *when wanted*; a large number of its officers will be out watching and reconnoitring in every direction. The chief of the Cavalry must be up as near the front as possible, ever on the watch to assist the Infantry, gradually moving his Cavalry force forward from one sheltered spot to another by 'successive bounds' (as the French describe it), and each of these bounds may entail a fight, but the object must always be kept in view. As the decisive moment comes (which may not come remember, for two or three days!) the Cavalry will have gradually approached under cover, close to the enemy, and be ready to assist when the Infantry want it.

And as for the argument that the Cavalry who carry out these extensive turning movements will be well placed to cut off the enemy's retreat, besides the answer that the first thing is to make the enemy retreat, and the second to turn his retreat into a rout, for both of which the presence of Cavalry on the actual decisive point will probably be necessary, it must also be remembered that Cavalry can so easily outpace Infantry, that once the enemy is routed it will then be time enough to push

on bodies of Cavalry outside and beyond the flanks of his retreat, who can cut in again further on, at favourable points, and cut off or harass the retreating enemy.

Turning to the pages of our own official 'History of the South African War,' we may learn much on this very point about the handling of Cavalry on the battlefield.

At Talana (Vol. I. p. 189) our Cavalry, having missed one great opportunity for a successful charge, moved still further to the Boers' rear. Here it was out of all touch with the other arms, and any co-operation was impossible. It then found itself the hunted instead of the hunter, and only escaped with difficulty from the situation ; in fact, some did not escape at all !

At Belmont (p. 220) the Cavalry was not employed under any idea of co-operating in the actual attack, but was placed on the flanks 'to prevent his (the enemy's) escape' ! Under this false and vague idea the Cavalry wandered away in an entirely isolated manner to the flank, and, when our Infantry were making the successful assault, no Cavalry was present ready to be launched to the attack, supported and covered by the fire of our own victorious Infantry.

At Graspan (p. 232) one sees the fact recorded that the Cavalry was despatched on a wide turning movement into the enemy's rear to seize a valley about five miles behind the Boer position, with the view of 'capturing' the enemy (who was not yet defeated !).

Close co-operation of the Cavalry with the other arms was out of the question.

On pp. 239-40 we read that the Boers were able to escape quite quietly after the assault. Where were the Cavalry ? Employed on 'a wide turning movement' ! Not only perfectly useless to us, but running considerable risks on its own account !

It should have been working in the closest co-operation with our own Infantry, and it should have been on the position within a few minutes of the victorious assault, and at once

carried out a mounted attack on the Boers, 'supported and covered by the fire of our own Infantry.'

As a matter of fact, in spite of the praise bestowed on the work of this portion of the Cavalry in the 'Official History,' it fulfilled no useful purpose whatever. The Boers entirely ignored it during the real crisis of the fight, and its presence in no way conduced to the victory; and eventually, when the Boers retired, they turned on this body of Cavalry, isolated as it was, and it only escaped with difficulty.

Elandslaagte (p. 167) is the only battle where all three arms were engaged, in which we see the Cavalry handled in accordance with true principles.

Here it did not commit itself to 'a wide turning movement,' but waited (1) *in close touch* with the main battle, and (2) for the *right* moment; and then, in spite of the unfavourable nature of the ground, it was employed with most useful and decisive effect.

And again, discussing the lessons of 1870, Hoenig wrote: 'Nowhere did one take advantage of the tactical result, because the Cavalry was always at points where it had nothing to do, or because it arrived too late on the field of battle. At Vionville it was necessary to send to find the 6th Cavalry Division to get it up in the line (of battle); at Gravelotte the 1st Cavalry Division was brought up in impossible conditions. Although wishing to veil errors, I must say that all this was a real tactical monstrosity.'

CAVALRY SPIRIT AND ACTION

By CAPTAIN D. I. MACAULAY, 1st (D.Y.O.) Lancers

Points out that the true 'Cavalry spirit' is initiative. How modern conditions have modified old methods of Cavalry action, and increased the value of initiative, both tactical and strategical.

THERE is no more misunderstood, more misused, and more abused term in the military vocabulary than 'Cavalry spirit.'

'Cavalry spirit' is certainly not to be found in purely mounted infantry tactics, such as have been recommended by some critics of eminence, lay and military. These latter have seldom been Cavalrymen.

But neither does 'Cavalry spirit' consist of riding blindly at everything, as was the doctrine of the old school, which looked upon any suggestion for dismounted action by Cavalry as an insult to the arm.

The essential basis of 'Cavalry spirit' is not a *method* but a *principle* of action. That principle is *Initiative*.

Riding is in itself a means, not an end. It is the means by which Cavalry gets its mobility. Mobility gives the power of manoeuvre, and is itself the means by which military force is applied at a *chosen* point, in a *chosen* direction, and in the most *advantageous manner*, that is to say, by which is gained, *initiative*. This latter is for Cavalry the end to which riding is a means. Whatever the method by which Cavalry force is applied, whether by shock or fire action, it can still be in perfect accord with 'Cavalry spirit' so long as it is initiative. Initiative is the soul of Cavalry. It is the essence of 'Cavalry spirit.' It is the *Alpha* and *Omega* of Cavalry action, from reconnaissance to pursuit.

That modern improvements in firearms have seriously curtailed the possibilities of Cavalry action with cold steel cannot be denied. Shock action, nevertheless, retains its supreme importance. Firstly, for dealing during the strategic phase with the enemy's Cavalry, which must be beaten, because it is, as ours, of greater importance than ever *if properly used*; secondly, against other arms, under certain conditions of surprise, exhaustion, or demoralisation. On the other hand, it must be remembered that if shock action by Cavalry masses on the battlefield has been made less practicable, it has also become less important. Owing to the modern formations and the extent of modern battlefields, the effect of even successful shock action can only be very local. It can certainly never be as decisive as when masses were crowded into a space so small that the effect of a successful charge on a part was immediately felt throughout the whole. With any considerable numbers engaged there will be no charges in the future with results like those of Kellermann or Seidlitz.

If modern conditions have modified the old method of Cavalry they have at least given it a new method of action. Moreover, they have in no way altered the principle on which it acts. Shock action, in olden times practically the only method of action for Cavalry, was and is essentially initiative. So also should be in nature the dismounted action of Cavalry. Even in defence Cavalry can always maintain initiative owing to its mobility and its power of employing its reserve, where and how it will, to attack. Mere passive defence can never be in true accord with the spirit of Cavalry *except when acting for some special end*, to be attained in combination with some other force—*e.g.* when fighting a purely delaying action—when even passive defence may be initiative in its true sense.

If we leave method of action to consider the rôle of modern Cavalry we shall find that modern conditions of warfare are not only not unfavourable to Cavalry, but they have, indeed, increased the importance of the arm, for the very reason that they have emphasised the value of initiative—the principle in which its

spirit, and therefore its action, is based ; and have given to the arm a new and greater rôle completely in accord with that principle.

The initiative has always been one of the most important elements of success in war. Modern conditions of war have increased the value of initiative, strategical and tactical. The latter point is of special interest, because it was for some time held to be doubtful. In view of the increased power of defence, great superiority of numbers was for a time considered necessary for the successful assumption of tactical initiative. In the Manchurian war it has been proved that inferior can defeat superior numbers by a determined and tenacious initiative.

The assumption and maintenance of tactical initiative is three-fourths of the modern battle. It is the decisive factor. Important as it always was, it is of far greater importance now for this reason, that once assumed it is more easily retained, and once lost or surrendered it is with greater difficulty regained. This is due to the great difficulty of making a successful counter-stroke, owing to the increased power of defence by the attack, and the immense distance to be covered in manœuvring. Defence once definitely assumed tends to become to all intents and purposes passive.

Without very considerable superiority of numbers initiative can only be attained by manœuvre, and therefore by mobility. Owing to the delaying power and range of modern firearms, and the wide extent of modern battlefields, the power of *rapid* manœuvre of Infantry *in comparison to the area of the field of battle* is practically non-existent, or at least, seriously curtailed. It is here that Cavalry finds a rich compensation in modern war for the modification of its old tactical action. *In grand tactics* the relative mobility of Cavalry to that of Infantry has been increased out of all proportion by the extension of the fighting arena. On a great modern battlefield mounted troops alone can carry out an important manœuvre in grand tactics with any degree of suddenness or rapidity. Cavalry alone can secure what is sure to be a

hotly contested initiative for its side or regain it if temporarily surrendered. Without prejudice to its old rôles of reconnaissance or pursuit, this will be the rôle of Cavalry in modern battle. Can we desire one more glorious or more decisive ?

Cavalry will in future be known as the strategic arm. In grand tactics it will be the arm of manœuvre, and will initiate the movements by which the initiative will be seized. In defence it will initiate counter-stroke, by which it will be possible for the initiative to be resumed. As has already been pointed out, this new rôle is essentially in accord with the spirit of Cavalry, which is itself essentially initiative. To carry it out its action *must* be initiative.

If we accept this enunciation of the rôle of modern Cavalry as correct, and if we recognise the fact that the basis of 'Cavalry spirit' is 'initiative,' and not only the charge, then much will be done to alleviate the friction which is sometimes caused by arguments as to mere methods; to insure a more rational conception of the true spirit of the arm; and to fix a standard by which Cavalry action may be judged. The choice of method in any particular set of circumstances will then be settled, not with some fanciful or romantic idea of 'Cavalry spirit,' but in accordance with a definite *principle* and with a definite *aim*.

CAVALRY IN THE WATERLOO CAMPAIGN

A criticism of the employment of the Cavalry in the Waterloo campaign, in the light of the principles set forth in 'Cavalry Training,' 1907. This paper discusses very briefly the employment of Cavalry in that campaign under the following headings:—Organisation and Armament—Independent Cavalry—Protective Cavalry—Cavalry in co-operation with other Arms—Reconnaissance—The service of Inter-communication.

IN attempting to draw any comparison between our own methods and those of the great leaders of Napoleonic times, it must always be remembered that, immutable as are the fundamental principles of war, the conditions under which they are applied are vastly changed. The developments of science, long-range quick-firing weapons, means of rapid communication, improved methods of transport, modern hygiene, and concentrated foods, have altered tactical formations and facilitated strategical combinations.

ORGANISATION AND ARMAMENT

The organisation of Napoleon's Independent Cavalry dates from 1800, when the first Cavalry Corps was formed by Bonaparte, the First Consul, of four brigades under Murat in Italy; but it was not until 1805 that Napoleon, the Emperor, was in a position to carry out his full conception of the use of the arm, by placing under the same commander (Murat) his so-called 'Cavalry Reserve' of 22,000 sabres, the remainder, 18,000 Light Horsemen, being allotted to the Army Corps as Corps Cavalry, in the proportions of a division or a brigade to each.

Napoleon's definition of the Cavalry Reserve is as follows :—

‘The Cavalry of the Line can only be of full value in great masses, employed at the end, the beginning, or the middle (note the order) of the contest as the case may be, and must be kept separate from the other arms to enable it to act opportunely, and independently of them, while co-operating with them for the common object.

‘It must therefore be massed as a Reserve to the Army.’

In the Grand Army of 1805 the proportion of Cavalry was one-fifth or 20 per cent. of the whole, and more than half of it was allotted to the Cavalry Reserve. In the Jena Campaign of 1806, Murat's command was increased to 28,000 sabres, though in the campaign of the following winter in Poland, this organisation was modified so as to give a larger proportion of Cavalry to Army Corps detached on independent missions beyond the zone covered by the Independent Cavalry.

After the Peace of Tilsitt, 1807, Napoleon's Cavalry was widely distributed among the many quarters of Europe where French supremacy had to be maintained.

From 1807 to 1814 the Peninsular Wars were a constant drain upon French resources; of the three armies there operating, Soult's army of Portugal alone was regularly organised as such, and included 5,000 Cavalry in a total of 40,000 men; Massena, who superseded him in 1810, had 65,000 men, of whom 10,000 were Cavalry, including a Cavalry Reserve of 6,000 Dragoons and Chasseurs under Montbrun.

In July, 1812, the troops in Spain totalled 250,000 men, of whom 25,000 men were Cavalry; but drafts for the Grand Army continually reduced these numbers, especially of Cavalry, till in 1814, when before Toulouse Soult fought the last of this long series of battles, he had no more than 2,400 sabres in an army of 30,000 of all arms.

Meanwhile Napoleon had fought the campaign of Eckmuhl (1809) with 180,000 men, including 80,000 Cavalry, of which 9,000 under Bessières formed his Cavalry Reserve; and when

the Grand Army of 1812, which perhaps came nearest of all to his ideal, was formed, he crossed the Nieman with 480,000 men, of whom one sixth or 80,000 were Cavalry, the Reserve under Murat, 86,000 sabres, being organised in four separate Cavalry Corps.

After the Russian campaign, specially disastrous as it was to the mounted arm, the Cavalry of the Grand Army never again reached a higher proportion than 14 per cent., though the same principle of organisation was maintained.

In forming his army for the Waterloo campaign, it will be seen then that Napoleon followed the system he created, and used with success, of attaching to each Army Corps a proportion of Light Horsemen sufficient for their needs, for protection, tactical reconnaissance, despatch riding, escorts, and orderly duty, while he kept the remainder, including his Heavy Cavalry, as a 'Cavalry Reserve,' or Independent Cavalry ; of his army of 120,000 men, 21,000 were Cavalry distributed as follows :—

The Imperial Guard had two divisions, strength 8,590			
„ 1st Corps	„ one division,	„	1,400
„ 2nd Corps	„ one „	„	1,729
„ 3rd Corps	„ one brigade,	„	982
„ 4th Corps	„ one division,	„	2,866
„ 6th Corps	„ no Cavalry.		

The Reserve Cavalry (11,000) was formed in four Corps :—

Fajol's Corps of Light Cavalry,	two divisions,	2,824
Excelman's Corps of Dragoons,	two divisions,	2,817
Kellermann's Corps of Dragoons, Carabineers, Cuirassiers,	two divisions,	3,245
Milhaud's Corps of Cuirassiers,	two divisions,	2,556

To each Corps were attached two Horse Batteries.

This nomenclature of Cavalry Corps and Cavalry divisions sounds more imposing than it really was, for the divisions seldom exceeded three regiments, and the strongest of them, the

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Light Cavalry division of the Guard, comprised only nineteen squadrons; it was all part of the general system of bluff by which the Emperor sought to conceal his weakness, inspire confidence in France, and spread dismay among his enemies.

This initial organisation was not by any means maintained throughout the operations, and the Reserve Cavalry never fought as a whole.

Fajol's Light Cavalry Corps, with Domon's Cavalry division of the 3rd Army Corps, led the advance of the centre column on Charleroi on June 15; later in the day Excelman's Dragoons came up, but the two remaining Corps of the Reserve Cavalry remained behind the Infantry.

On the 16th, Kellermann fought with Ney at Quatre Bras, Fajol and Excelman held the right of the French line at Ligny, and Milhaud's Cuirassiers with the Heavy Cavalry of the Guard were kept for the final blow that broke the Prussian centre.

On the 17th Fajol's Corps (reduced to one division by the detachment of Subervie to the left flank during the battle of Ligny), together with Excelman, joined Grouchy's detachment in pursuit of Blucher, while Milhaud's Corps and Subervie's division joined Kellermann on the Brussels road.

The Army Corps Cavalry were also detached from their Corps as circumstances demanded; Lefebvre-Desnouette's Light Cavalry division of the Guard was sent to Ney on the 15th, and pushed as far as Quatre Bras that evening; and on the 17th Domon's Cavalry division joined in the pursuit of Wellington's army on the Brussels road, and subsequently fought at Waterloo, while the 3rd Army Corps, of which it formed part, accompanied Grouchy to Wavre.

Napoleon thus used his Cavalry when and where he wanted them, regardless of their initial formations, and this same principle is set forth in our own 'Cavalry Training,' section 144, where, after giving the normal division of the mounted troops into Strategic or Independent, Protective, and divisional Cavalry, it is laid down that 'Circumstances may, however, require the rein-

forcement of the Strategical Cavalry by the Protective Cavalry, or *vice versa*, the fundamental principle being that units are to be grouped so as to get full value from the arm where it is most wanted.

The organisation of Blucher's Cavalry was that still maintained in the peace formations of the German Army: to each Army Corps was attached a Cavalry Reserve of two or more brigades of varying strength.

The 1st Army Corps had 8 regiments formed in 2 brigades.

The 2nd Army Corps had 9 regiments formed in 3 brigades.

The 3rd Army Corps had 7 regiments formed in 2 brigades.

The 4th Army Corps had 11 regiments formed in 3 brigades.

These Cavalry Reserves were never detached from their own corps, or used in a mass under one command.

The distribution of Wellington's heterogeneous collection of mounted troops presented graver difficulties: they included 7 brigades of British and King's German Legion Cavalry, 1 Hanoverian Brigade, 5 squadrons of Brunswickers and 3 brigades of Dutch-Belgians, all of which were nominally under Lord Uxbridge's command.

With the British were six Horse Batteries, and with the Dutch-Belgians two half-batteries.

There was no divisional organisation, nor were the Cavalry Brigades attached to any of the formations of the other arms. Lord Uxbridge's personal command practically embraced only the 7 British and German brigades, which, cantoned together at the opening of the campaign in the Dender Valley, reached Quatre Bras on the night of June 16, successfully covered next day the British retirement to Mont St. Jean, and fought in second line at Waterloo.

The Brunswick Cavalry fought with their own contingent at Quatre Bras and at Waterloo, and the Dutch-Belgian brigades, which were at first scattered in observation of the frontier, took little or no part in the fighting till Waterloo, when they were in reserve.



SERGEANT TAYLOR, 18th HUSSARS, AND A FRENCH CUIRASSIER.



LORD UXBRIDGE CHARGING ON JUNE 17.

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There is thus no parallel in Wellington's distribution of his Cavalry, with which our own arrangements of the present day can be compared.

Divisional Cavalry, as such, had no place in the organisation of either of the three armies, though doubtless the Prussian and French Corps Cavalry were called upon to find the necessary Orderlies &c. for service with the Commands to which they were attached.

That this drain upon the mounted services was felt is shown by Napoleon's institution in each of his Cuirassier Divisions in 1811, of a regiment of Lancers to do the despatch riding, escorts, and all attached duties: 'On no pretext whatever,' he writes, 'are Cuirassiers to be detailed as Orderlies.'

The strength of the Cavalry of each army was as follows:—

French	21,000
Prussians	12,000
Anglo-Allies	14,500

The exercise of command by both British and French Cavalry leaders is by no means in accord with modern ideas (*vide* 'Cavalry Training,' par. 150, vi.). On the one side we see Kellermann, a Cavalry Corps Commander, leading one of his four brigades to the charge at Quatre Bras, while the other three remained idle; at Waterloo we see Ney, a Marshal of France, bare-headed, blackened with powder, his uniform in shreds, the hilt of his broken sword in his hand: twice he had led D'Erlon's Infantry to the attack, four times he had charged at the head of the Cavalry, and finally he had headed the last desperate assault of the Old Guard. On the other side we see Lord Uxbridge personally leading the charge of a single brigade, and we see Vandeleur leading in turn single regiments of his brigade to the attack.

To keep his head clear and maintain the necessary general supervision over his Command, our Regulations direct the higher Cavalry leaders to abstain from personally engaging in the fight

till the whole of their Command is employed : a commander's brain is of more value than his sword.

The mobility of the Cavalry of Waterloo days was distinctly less than that of modern European horsemen ; clumsy equipment, inferior horses, and indifferent horse-management, all conduced to the same end ; Europe had been drained of horses during twenty years of warfare ; Napoleon never spared them 'when they can catch men,' and as, during his great campaigns of victory, remounts were always available by capture or requisition, careful horsemastership was not the tradition, certainly of the French Cavalry.

It is probable that the British and German Cavalry were better man for man than either the French or the Prussians, who numbered many Landwehr regiments in their brigades, and certainly they were better mounted, but the weight their horses carried was too great for rapid sustained movement. We read of the troopers throwing away their hay-nets on the forty-mile march from the Dender to Quatre Bras, which it took them all day to accomplish, and at Waterloo the charge from the ridge across the valley to the French batteries, which exhausted the Household and Union Brigades, covered barely half a mile, though the ground was certainly heavy.

The repeated charges of the French Cavalry were made at a trot and in heavy columns.

The majority of the Cavalry of all three armies carried some form of carbine or musketoon, though, owing doubtless to the limited range, dismounted action was little in vogue.

Napoleon thus defines his views in arming even his Cuirassiers with a carbine ; in a letter to his War Minister in 1811 he writes :—

'I recognise the difficulty that a man wearing a cuirass will have in handling a carbine, but it is nevertheless the height of absurdity that, for the want of it, three or four thousand of such brave fellows should be surprised in their quarters, or stopped on the march, by a handful of Light Infantry.'

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Among both the French and the Prussians were to be found regiments of Lancers, but the sword was the general weapon of all.

INDEPENDENT CAVALRY

The Waterloo campaign gives us no instance of the strategic use of Independent Cavalry as exemplified by the great campaigns of 1805, 1806, and 1812.

The campaign opened with the opposing forces in actual touch, and there was no intermediate zone for a great strategic reconnaissance, nor was it necessary on the French side, for Napoleon had an intimate knowledge from spies and friends in Belgium of the exact initial dispositions of the allies, and by his offensive strategy forced them immediately to conform to the line of action he had designed.

International jealousies, on the other hand, forbade the allies to cross the frontier into France with even an officer's patrol, and pierce the screen of frontier posts behind which Napoleon concentrated his army.

This disability, combined with the sensitiveness for his right flank, which throughout influenced all Wellington's dispositions, doubtless dictated the location of Lord Uxbridge's immediate command about Ninove.

It may be suggested that the French Cavalry Corps might have been well used to take care of Wellington's army while Napoleon dealt with Blucher, and *vice versa*; but it must be remembered that the tactics of the day gave to the shock action of Cavalry on the battlefield an importance of which the development of modern firearms has robbed it, and the presence of heavy Cavalry upon the fields of Ligny and Waterloo was imperative, and to this consideration must be added inferior mobility, and a lesser degree of tactical independence, than that which a perfect firearm and an abundance of guns and machine guns now give us.

PROTECTIVE CAVALRY

For the work of Protective Cavalry and tactical reconnaissance there was greater scope, and as such the divisions attached to Army Corps were largely used.

On June 15, Pire's Cavalry Division of Reille's Corps led the advance of the left column on Marchienne, Domon's Cavalry of Division of Vandamme's Corps with Fajol's Light Cavalry Corps led the advance of the centre on Charleroi, and Gerard's Army Corps was covered by Maurin's Cavalry Division in its tardy advance on Chatelet.

On the Prussian side Roder's two Cavalry Brigades took a prominent part in the brilliant rear-guard actions of Ziethen's Corps throughout the day, while on the Anglo-allied front, Dornberg's Brigade, and the Dutch-Belgian Cavalry, whose knowledge of the country and language naturally fitted them for the duty, remained in protective observation of the frontier.

'Cavalry Training,' page 194, lays down that 'As the opposing forces get into tactical touch, it may be necessary for the Protective Cavalry to concentrate either wholly or partially, and drive back bodies of opposing Cavalry in order to discharge its duty of protection, or to clear up the *tactical* situation;' again, 'In this phase the Independent Cavalry may co-operate' and 'success will only be attained by timely concentration of sufficient force and the assumption of a vigorous offensive.'

It is quite in accord with this prescription that we see Napoleon, in the afternoon of the 15th, sending to Ney, who had assumed command of the left column, the Light Cavalry of the Guard to clear up the tactical situation towards Gosselies and Frasne, while Excelman's Dragoon Corps of the Cavalry Reserve came up into line with Fajol before Gilly; the 'vigorous assumption of the offensive' was however not immediately carried out in either case.

That night Fajol and Excelman bivouacked in touch with the Prussian outposts before Fleurus, and the Guard Light Cavalry lay alongside Pire at Frasne.

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Early next morning Fajol was able correctly to report the Prussian concentration on the heights of Bry, though on Ney's flank the Cavalry failed signally to discover the weakness of Perponcher's defence of Quatre Bras.

CAVALRY IN CO-OPERATION WITH OTHER ARMS

We read in 'Cavalry Training': 'As the final phase of the operations, culminating in a general engagement, draws on, both the Strategical and Protective Cavalry will co-operate with the other arms in securing the defeat of the hostile army.' Again, 'Every victory which has been gained without Cavalry having fully contributed its share, and every defeat in which Cavalry has not sacrificed itself, regardless of loss, must be considered as discreditable to the arm.' Section 159 further elaborates this principle, and, after dealing with the Tactical Reconnaissance of the enemy's position, indicates that, during the development of action, the Cavalry 'may be used to operate against the enemy's flanks and so incidentally protect its own, to assist in enveloping movements, or to deceive the enemy as to the Commander's plan of action, by the formation of "false fronts" and "false flanks" (a modern development of dismounted action); in the moment of the crisis it may find opportunities for action, though only in concentrated force; but *pursuit* is its special duty, and this duty must throughout be borne in mind.'

At Ligny no preliminary tactical reconnaissance by the Cavalry was required, for from their respective mills at Bry and Fleurus, Blucher and Napoleon could overlook the whole field; but on the French side certainly, the Cavalry 'fully contributed its share' in the defeat of the Prussians.

Throughout the day on the right flank, Excelman's and Fajol's Corps and Maurin's Cavalry Division held Thielemann's Army Corps (24,000 men) to its ground, and in the evening, having overthrown Lottum's Cavalry, pushed on almost to the Nivelles-Namur road; the French Left was protected all day by

Domon's Cavalry Division, supported later by Subervie's Division or Fajol's Corps, to enable it to make head against the Cavalry of Blucher's abortive counterstroke of 4 P.M. ; while in the final blow which broke the Prussian centre, Milhaud's Cuirassiers and Guyot's Heavy Cavalry Division of the Guard took a decisive part.

On the Prussian side, the brigades of the Corps Cavalry were too scattered to act with effect, though in one instance 47 squadrons (Jurgass' three brigades of the 2nd Army Corps, and the Marwitz Brigade of the 3rd Corps) took part in the counterstroke near Wagnelee, the latter subsequently observing the brief threat of D'Erlon's approach on that flank ; but nevertheless Roder's 82 squadrons, which again and again hurled themselves against the advance of the French centre, showed a fine example of the self-sacrifice of Cavalry to stem the tide of defeat.

Though the Prussian centre was broken, the wings were not, and the army never became a panic-stricken rabble to be ridden down by pursuing squadrons : darkness and the stubborn front they showed made direct pursuit by the French Cavalry impossible, and no strategic pursuit was initiated.

Early on the 17th, Fajol pushed his remaining division with praiseworthy vigour up the Namur road, picking up Prussian stragglers and eventually some guns as he went. His first despatch to Grouchy is dated 4 A.M. at Balâtre, and it is to his unfortunate misappreciation of the nature of the force he was following, confirming as it did Napoleon's own preconceived conviction as to the direction of Blucher's retreat, that the good fortune of the Prussians is directly traceable, in that they were able to concentrate at Wavre unobserved and unmolested.

The Prussian Protective Cavalry covered the retirement of the various corps with perfect precision, pushing out patrols wide on either flank, and some of the brigades did not reach the vicinity of Wavre till midnight of the 17th-18th. It is impossible to refrain from marking the fine staff work and method which characterised this most difficult of all military operations, the withdrawal of a beaten army from the field of battle.

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Napoleon's first verbal orders to Grouchy, given at 11 A.M. on the 17th, gave him three corps of the Reserve Cavalry, Fajol's (less Subervie's Division), Excelman's and Milhaud's, as well as Vandamme's and Gerard's Army Corps complete. When subsequently he reduced these orders to writing, the corps of Milhaud and Domon's Cavalry Division of Vandamme's corps were withdrawn to accompany the main army on Waterloo.

Turning back to June 16, and the action of Quatre Bras, we cannot but criticise adversely the conduct of the French Cavalry.

Unlike Blucher, Wellington never showed his troops till they were wanted, and tactical reconnaissance by his adversary was therefore all-important: Ney had Pire's Division, the Light Cavalry of the Guard, and Kellermann's corps, four divisions in all, and no Cavalry against him, and yet he failed to discover the initial weakness of the defenders of Quatre Bras.

Of the four divisions of Cavalry, only Pire's two brigades and one brigade of Kellermann's were employed at all, and they wasted their strength in continual charges against the stubborn British squares rather than in reconnaissance and enterprises against the flanks of the position: that their attacks kept the British Infantry in square under heavy artillery fire was, however, an important end gained, for Cavalry appears to have done for the guns in 1815 what the Infantry advance does for them now, *i.e.* forces the enemy's Infantry to expose themselves. It was only after the fighting ceased that Lord Uxbridge's Cavalry came up, and next morning they took over the outpost line, which they held till the Infantry columns were well on their way to Mont St. Jean.

Not till after one o'clock on the 17th did Napoleon's appearance, advancing down the Namur road with three divisions of Light Cavalry and Milhaud's Cuirassiers, cause Lord Uxbridge to retreat. The story of the withdrawal of the British Cavalry, and how, with guns and carbine fire, and by vigorous local counter-charges, they checked the pursuit of the French Light

Cavalry on the Dyle, directed though it was by Napoleon in person, forms one of the most instructive incidents of the campaign, and gives us a fine example of successful co-operation of Cavalry and Horse Artillery.

At Waterloo next day both the Reserve and Corps Cavalry played a leading part.

Napoleon's first line was flanked on the right by Jacquinet's and on the left by Pire's Light Cavalry Divisions, drawn up each on the exposed flank of its own corps.

In second line were Kellermann and Guyot (3 divisions) on the left, Milhaud and Lefebvre-Desnouette's (4 divisions) on the right, and Domon and Subervie (2 divisions) in the centre.

With no preliminary reconnaissance beyond his own personal observations made at dawn from the outpost line, which convinced him that the English were standing firm, Napoleon launched his attack, as soon as the ground was dry enough to get his guns into position.

On the first appearance of the Prussian columns in the woods of Chapelle-St.-Lambert on the French right, the Light Cavalry Divisions of Domon and Subervie were sent off to protect that flank.

From 4 P.M. till 6 P.M., first Milhaud and Lefebvre-Desnouette and later Kellermann and Guyot, charged repeatedly against the British centre, and had they been given timely Infantry support the result would in all probability have been different.

When finally the last attack of the Old Guard failed, and the victorious British and Prussians converged upon the rout of the beaten army, there was no Cavalry left to sacrifice itself and stem the torrent: Pire's Cavalry alone had not been seriously engaged, and they reached Quatre Bras in fair order by a wide détour; but the remainder, Cuirassiers, Dragoons, Hussars, and Lancers, were involved in the general *débandade*. Of Wellington's Cavalry, two brigades, Vivian's and Vandeleur's, prolonged his left flank towards Wavre, and the remainder were well employed in local counterstrokes wherever the first line wavered; the danger

of carrying such attacks too far being exemplified in the disaster to the Union and Household Brigades.

Vivian and Vandeleur alone joined effectively in the final advance of the British line, the former being personally stopped by Wellington near Rossomme, beyond which point the Prussians alone continued the pursuit, urged on by Gneisenau's untiring energy.

The action of the Prussian Cavalry, though correct enough, was not characterised by remarkable independence or enterprise. Early in the morning their patrols made sure that the passages of the Lasne were clear, and that communication with Wellington was open; the Cavalry of each corps scouted the advance of its own troops and protected the flanks of their march, and finally the Cavalry of Bulow's Corps led the pursuit.

That there was no concentration of Prussian Cavalry under one command capable of making itself felt as it might have done on this day, bears out remarkably Napoleon's dictum, that it is only in great masses that Cavalry can intervene with effect upon the battlefield.

RECONNAISSANCE

Of strategic reconnaissance on a large scale there is in this campaign, for reasons given above, no instance, and of tactical reconnaissance there are few brilliant examples.

The leading of a troop of the 10th Hussars under Captain Grey, sent out from Quatre Bras early in the morning of the 17th to clear up the situation towards Ligny, is worthy of all praise; and the wide field covered by the Prussian patrols on the same day, which observed Grouchy, reconnoitred all the valley of the Dyle, and made sure that communication with Wellington remained open, is quite in accordance with modern teaching.

The want of enterprise and vigour in the French tactical reconnaissance calls for special comment, particularly at Quatre Bras as already noticed, and again in the case of Excelman's

Brigades, which pushed no further than Gembloux on the 17th, while, unmolested and unobserved, the whole Prussian army concentrated at Wavre.

It is the French failure to reconnoitre, not to pursue, that is so clearly culpable on this day; there was a vast difference between the circumstances of the morning after Ligny and those of former victories, when Napoleon had been able, with such far-reaching results, to inaugurate, with greatly superior forces, the pursuit of an enemy who had been decisively crushed.

Here Napoleon had to turn with his main force, and above all with his freshest troops, against a new enemy over whom no victory had been gained, and the pursuit had perforce to be left to corps which had been engaged all the previous day in desperate fighting, and needed time for re-organisation and the replenishment of ammunition; but the Cavalry were available, if not for direct pursuit, at any rate for reconnaissance, to find out which way the enemy had gone, and herein they grievously failed.

INTER-COMMUNICATION

The important service of Inter-communication seems to have been signally inefficient in both the British and French armies of this period, and there are numberless instances of delay and even total failure in the transmission of the most important messages.

First of all the non-delivery to Vandamme of Napoleon's march orders of June 14 resulted in his blocking the advance of the whole centre column on the following morning; and again, the slow pace at which urgent messages from the front reached Wellington in Brussels, nine miles an hour from Charleroi, and barely eight miles an hour from Namur, point to the inefficiency or neglect of a proper system of relay posts.

Whether, in view of the news he had received the previous day, the Commander-in-Chief was rightly placed so far back is another question.

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On June 16 communication between Napoleon and Ney was as imperfect as that between Wellington and Blücher. Wellington's first news of the result of Ligny was given him at 7 A.M. on the 17th by Captain Grey's patrol, sent out by himself that morning, and it was about the same hour that Napoleon at Fleurus first heard of Ney's ill-success at Quatre Bras, eight miles distant.

In his orders to Grouchy on the 17th, Napoleon more than once mentioned communication: 'Our communications will then be direct by the Namur road,' and 'Place Cavalry detachments between us, so that you may be able to communicate with headquarters'; yet Grouchy's first message, dated Gembloux, 10 P.M. on the 17th, did not reach Napoleon's headquarters till 2 A.M. on the 18th, a pace of five miles per hour.

Subsequent messages were equally slow in passing between the detachment and the main army, nor does the communication between Wellington and his ally appear to have been much more perfect.

CONCLUSIONS

In these days of field telegraphs and signalling, communication is much more rapid and effective, but it must always be remembered that such means are liable to interruption, and the efficiency of despatch riders, and the organisation of a regular system of inter-communication by mounted men and cyclists, are matters of far-reaching importance.

To sum up, it is in the tactics by which, on the modern battlefield, Cavalry seek to assist 'in securing the defeat of the hostile army' that we find the greatest divergence between the practice of Waterloo in 1815 and the precepts of 'Cavalry Training,' 1907.

The extent of modern positions, false flanks and false fronts, indirect artillery fire, smokeless powder, and all the modern methods of concealment, as well as the necessity of locating the enemy's reserve, now give a paramount importance to the tactical

reconnaissance, which was then often unnecessary and generally neglected : now, as then, to Cavalry falls the duty of protecting the flanks, though wide-turning movements and the invariable counter-stroke render necessary more extended reconnaissance ; and finally, it is in the crisis that we see the greatest change of all, for the development of superior fire at the decisive point has replaced the physical force of the shock of Heavy Cavalry, with which Napoleon was wont to crush his way to victory, and it is now rather in the instant and untiring pursuit that the ' Reserve Cavalry,' kept ready and concentrated, will seek an outlet for its pent-up energy.

Superior mobility, and the complete independence conferred by the possession of guns, machine guns, and rifles, have given to the Cavalry of the present day a field of action infinitely more extended than in Napoleon's day, and proportionate to the increased dimensions of modern war.

CAVALRY AT SADOWA

By CAPTAIN C. BATTINE (*late 15th Hussars*)

In our January number we gave a short review of General H. Bonnal's book on 'Sadowa,' and this article is written with the aim of showing how the Cavalry on both sides might have been more effectively employed. The writer gives the situation at dawn on July 3, 1866, and draws attention to the imprudence of the Austrian Commander in taking a purely defensive rôle when armies were manœuvring against him from different directions.

THERE can be no doubt that the failure of the large forces of Cavalry present with the Russian, French, German, and Austrian armies in the campaigns of the last fifty years to strike any severe blow on the actual field of battle, and the fact that the Cavalry troops who fought in the American Civil War were employed strategically rather than tactically, fighting on foot more often than on horseback, has had the effect of making the organisers of armies, who, when they are not civilians are generally infantry soldiers, extremely sceptical as to the value of Cavalry on the battlefield itself, although its strategical use is generally recognised. In France, Germany, and Austria Cavalry officers are selected for the highest commands, and in each of these countries the preponderance of influential military opinion lies with the school who would revive the Cavalry methods of Napoleon. Great difference of theory, however, exists as to the wisdom of trying to train Cavalry to fight on foot (even in the most advanced school of Cavalry tacticians), except as the most temporary expedient, having regard to the short time available for the instruction of the horse-soldier. It is worth noting that even with the comparatively ineffective fire-arm of his day Napoleon ordered his Cavalry to be taught to fight dismounted ;

nor can anyone think that he underrated the value of shock tactics, or wished to discontinue recourse to them on the battlefield.

THE SITUATION AT SADOWA

Of all the decisive battles in history probably Sadowa presents the picture which Cavalry soldiers contemplate with least pleasure, for there were assembled on each side formidable and accurately drilled masses of horsemen, and they assisted in the battle, which sealed the fate of Germany, chiefly as spectators. In order to appreciate the situation of the contending armies at dawn of July 3, 1866, a brief description of their circumstances and a short study of the accompanying map is necessary.

The Austrian army had effected its concentration on the right bank of the Elbe, and Benadek, its commander, intended to fight a purely defensive action on the line of the river Bistritz against the Prussian army in his immediate front. Benadek disposed of seven Austrian and one Saxon army corps, with five fine divisions of Cavalry. His orders prove that he had no apprehension of a serious attack on his right flank, though he evinced some anxiety for his left. The line to be taken up in case of a general attack extended for seven miles in a line roughly north and south, parallel with the general course of the river Elbe and about four miles west of it. Five army corps were directed to deploy in case of attack ; three were held in reserve with the whole force of Cavalry. On the Prussian side nine army corps with three Cavalry divisions were grouped in two commands. Five army corps and a corps of two Cavalry divisions, under Prince Frederic Charles, bivouacked in order of march by divisions on the right bank of the river Bistritz ; four army corps with one Cavalry division under the Crown Prince had reached, with their advanced guards, a line distant about seven miles from the ground upon which it deployed to attack the Austrian right flank. During the night the Crown Prince had received orders from Prussian headquarters to move to the

assistance of the first Prussian army with all his forces ; orders had been issued by Frederic Charles to his divisional commanders to attack the Austrians on the left bank of the Bistritz. This attack began in earnest about 9 A.M. The dense woods which intersected the Austrian position, and the deep folds in the ground, gave considerable advantages to the attacking rôle ; but on their right flank facing north the Austrians could have deployed a more formidable defensive line, for the country was more open, and a chain of low hills formed a natural rampart from the hill of Horenowes to the Elbe. It will be seen that, given equality of fighting strength in the two armies, it was possible for the Austrian commander to keep the second Prussian army off the field while he overthrew the first. The actual preponderance of strength lay with him had he only known how to use it. He disposed of five Cavalry divisions against three, and eight army corps closely concentrated against nine, moving concentrically from a wide arc ; his artillery was more powerful than the Prussian, but his infantry was inferior in armament, in training, and in leadership.

REASONS FOR AUSTRIAN FAILURE

It is important to realise that the disaster to the Austrian army was due primarily to the imprudent plan of accepting the purely defensive rôle against armies which were manœuvring against it from different directions. Against badly trained, or badly led, or inferior troops the purely defensive has constantly scored successes, though seldom decisive victories. When, however, the defending army awaits the succour of a detached force, like Wellington at Waterloo, the defensive rôle may win a great victory ; at Sadowa the advantages in all these respects lay with the assailant, and the one chance for the Austrian commander was to keep the columns of his adversary in check while he used his concentrated forces against a fraction of the Prussian army. Let us consider how this plan of action could

have been put into practice. If the Austrian Cavalry had been armed with even as good a rifle as the Cavalry of the Confederate States in 1863, three of their Cavalry divisions, with horse artillery and with one army corps marching to support them, could have made certain of keeping the widely straggling columns of the second Prussian army off the battlefield. Without such a weapon shock action, supported by horse artillery, might have had the same effect, for the country traversed by the advancing Prussians gave great scope to Cavalry. It undulated sufficiently to enable the attacking horsemen to make their swoop as a surprise, but yet the slopes were gentle enough and the country sufficiently free of obstacles to give full force to the mounted attack. In the same war the Austrian Cavalry successfully routed the Italian columns at Custozza by just such tactics. Nevertheless, to make sure of keeping the second Prussian army off the field, Benadek should probably have directed two of his reserve army corps with one Cavalry division against the advancing foe. A third army corps, with another Cavalry division, could have inflicted an equally long check on the three divisions of the army of the Elbe, with which Prince Frederic Charles was attacking and outflanking the Austrian left wing. The concentrated mass of the Austrian troops would thus have placed a great superiority of numbers and artillery in the hands of their leader for a decisive stroke against the six divisions which composed the first Prussian army, the centre of the three Prussian masses.

Study of the map shows that if the second army had been held in check in the neighbourhood of Welchow, five miles from the position of the Austrian right wing, and if the army of the Elbe had been boldly and fiercely attacked by one army corps and one Cavalry division before its advanced guard was established on the eastern bank of the Bistritz, instead of the rearguard action fought by the Saxons in their retirement on Probus and Nieder Prim, then the Prussian centre lay within easy striking distance of five Austrian corps with three Cavalry

divisions. The second army was not in possession of Welchow when the battle began, nor had the army of the Elbe seized the passages of the Bistritz till an hour later. A further consideration is how the Austrian 'mass of manœuvre' should have been utilised to crush their immediate opponents.

THE PRUSSIAN CAVALRY

It was reasonable to expect that the three Prussian corps would await the co-operation of the wing armies on the strong position afforded by the heights west of the river Bistritz. As it was important to deal with them as quickly as possible, three Austrian corps would not have been too large a force to detail for the frontal attack. There remained two corps with three Cavalry divisions for an attack on the left wing of the first army, which could scarcely have maintained itself for more than three or four hours against such a manœuvre if it had been executed in timely combination. As events actually occurred, no movement of Prussian troops took place until about 8 A.M. which could have checked the proposed manœuvre, and then the precipitate advance of the Prussian first army would have facilitated the task of the Austrian army. The Prussian Cavalry which should have been used to cover the advance of their infantry was, like its adversary, kept uselessly in reserve until its opportunity for decisive action was passed. It must be admitted that if the Prussian Cavalry had been utilised to the full, the proposed attack by the Austrians would have been far more difficult to execute, and it is interesting to consider how the three divisions of Prussian Cavalry should have been disposed.

WANT OF CO-OPERATION

The whole success of the Prussian plan of battle depended on timely co-operation between the first and second Prussian armies, consequently no avoidable risk should have been incurred by the Prussian leaders of the junction of their two armies being

successfully interrupted. Two, if not all three, of their Cavalry divisions should, according to this theory, have been employed to link the two armies, screen the advance and deployment of the second army, and support its attack if successful. The correct employment of the Cavalry masses on either side would then have led to a severe Cavalry contest in the country north of the Austrian position, on the issue of which much would have depended. The Austrians would have been able to employ four divisions of Cavalry against three Prussian. An alternative disposition of the Prussian Cavalry was to have utilised one division to link up the two converging armies, while the two divisions constituting the Cavalry corps felt for the extreme Austrian left wing and lay in wait for an opportunity to assail it. The former would have been the more prudent course, the latter gave great opportunities if the Austrians preserved their defensive attitude, as they actually did.

OPPORTUNITIES FOR CAVALRY

The power of Cavalry to rapidly transport itself across the country, while the infantry columns are slowly toiling along the roads in deep unwieldy formation, gives to a skilful Cavalry leader a very deadly weapon. The infantry cannot deploy in time to meet sudden attack, even on a narrow front, and as the areas of battlefields expand, and the distances increase between the critical points and the positions of the nearest reserve troops on either side, this resource of Cavalry becomes more and more important. The remarkable thing is how seldom any attempt is made to take advantage of it. No Cavalry leader need ever despair of finding an opportunity to win a big coup.

In conclusion it is necessary to reckon up the qualities and attainments of the Cavalry force requisite to accomplish great things in battle. I have no hesitation in asserting that Cavalry must be prepared to act either by fire or steel as the occasion arises. Without the rifle, or without the sabre (better still the

lance), cavalry will constantly be confronted by situations which require its use, nor are decisive results to be hoped for in general without combination of fire and shock action ; the one is the consummation and necessary complement of the other. A mounted force must reach the field with horses in a condition to sustain a three-mile gallop at good speed. The rank and file must be good riders, be trained to use their horses and weapons with confidence, follow their leaders, mount and dismount in a flash, and rapidly rally whenever required.

Such should be the instrument ; the qualifications of the workmen who are destined to handle it are perhaps even more imperatively necessary. The leaders should have intimate knowledge of one another's ideas and confidence in one another's determination. Every subordinate chief should be ready to seize an opportunity and come to the aid of his neighbours. True harmony and comradeship, by which alone co-ordination of effort can be counted on, are essential. Professional spite and jealousy are fatal to great undertakings. Finally, and most important of all, the chief of the whole force must understand the war of masses, and have the knowledge of infantry tactics which readily grasps the puzzling situations created by contemporary fighting with its hidden combatants and enormous distances. Such a chief may be difficult to find in time of peace, but he is worth looking for, remembering that his intervention in war may not impossibly turn the scale and change the course of history.

HUSAREN-REGIMENT FÜRST BLÜCHER VON WAHLSTATT (POMMERSCHES) No. 5

By B. GRANVILLE BAKER (*late 9th Royal Prussian Hussars*)

The fifth Prince Blücher Von Wahlstatt Hussar Regiment recently celebrated the 150th Anniversary of its formation, and King Edward's silver jubilee as its honorary Colonel. A short account is given of the origin and history of the Regiment, with various incidents in its career.

THE first appearance of Hussars as organised troops was in the beginning of the seventeenth century, the period of Hungary's greatness. The name Hussar is derived from the Hungarian 'husz,' twenty, and 'ar,' which means a small holding, and as a land measure corresponds to our acre. Thus 'Huszars' were small holders called up for military service by the Hungarian nobility against the inroads and encroachment of the Croats.

In the Prussian army Hussars were first introduced by King Frederick William I.; they were imported from Poland, and in 1729 we find two regiments of Hussars. According to a regulation of 1781, Hussars were to be drawn from those who were too small for other arms, five feet four inches being the lowest limit; they were to be unmarried, good-looking, and 'schwarze Kerls,' dark-complexioned. Hussars were not looked upon as respectable in those days; they were frequently deserters from other armies (both officers and men), and were given to predatory habits; in fact, in 1743, two officers and three men were hanged in front of the Breslau Rathaus for having extorted contributions from the inhabitants of the country. Even up to the days of the Napoleonic Wars, Hussars were looked at somewhat askance in private life, however great their valour and distinction in the field.

Nowadays, of course, the Prussian Hussar, like his comrade of other armies, is a model of all the virtues, particularly that which our neighbours call 'bonhomie.'

During the wars Frederick the Great waged against his many enemies a number of Hussar regiments were raised, whose history and varying fortunes make good reading. Six of these regiments still exist, each with a glorious record, and of these the 5th Prussian Hussars, with our King as their honorary Colonel-in-Chief, are second to none.

In 1758 the uniform consisted of a black jacket and slung jacket, with green braid for the men and gold lace for the officers, green collar and cuffs, white breeches and buff belts. The belt carried a pouch and a large hook, on which the carbine was suspended when not in use. A conical felt cap was adorned with a skeleton and the device 'Vincere aut mori.' The saddle-cloth was black, with green dog-toothed edging. Armament consisted of sabre, carbine, and pistols. Hussars carried valise and white cloak (in lieu of tents) on the saddle. The horse's headgear was of the Hungarian pattern.

Von Belling, the first commanding officer of this regiment, led it through all the ups and downs of the Seven Years' War. It was at Kay, near Züllichau, on July 23, 1759, that this regiment distinguished itself, and enabled Frederick the Great, who twice had his horse shot under him, to escape safely.

In 1760 Belling's Hussars were working with Manteuffel's Corps against the Swedes in Pomerania. Here an event happened which was to give its present designation to the regiment.

During a skirmish with the Swedish regiment of Yellow Hussars, a famous corps, one of them irritated by his arrogant behaviour a certain Gottfried Landeck, from Mahlsch, near Wahlstatt, a Hussar in Belling's regiment. 'You wait, my lad; I'll get you yet,' said Gottfried. And he did—and the Swedish Hussar he caught was Gebhard Lebrecht von Blücher, who subsequently joined Belling's regiment as cornet, and rose to be



B. Granville Boken



Byron H. Bolton

1908.

Fürst Blücher von Wahlstatt, the titular chief of the regiment under discussion.

Every evening Von Belling would pray in a loud voice, first of all thanking God for the preservation of his own life, then praying for a blessing on his regiment, now and then, perhaps, that this or the other officer of his might receive more enlightenment for the good of the service. In peace-time the conclusion to his prayer was invariably: 'And now, Eternal Father, Thou see'st the distressing circumstances of thy servant Belling. I pray Thee, therefore, give him soon a mild war, in order that he may improve these circumstances and praise Thy name for ever. Amen!'

There was no particular occasion to pray for war, or perchance his prayer was granted, for in 1777 we find the regiment taking part in the war of the Bavarian Succession, and in 1787 under the Duke of Brunswick in Holland, with Blücher as major and squadron commander.

The wars of the French Republic in 1792 brought the regiment into the field again, and we find them in 1794, under Blücher's command, doing deeds of derring-do at Alzingen Morschheim, Weidenthal, and Kaiserslautern.

In 1807 evil days befell the regiment, and we find it almost vanished, when only 800 men escaped from captivity, led by two sergeant-majors, in serried ranks.

A detachment of the regiment, all that was left, fought at Braunsberg in 1807, and captured a silver trumpet from the trumpet-major of the 4th French Hussars, which is still in the regiment.

In 1808 the red jacket, which had been worn since 1763, was given up, and a dark blue slung jacket or dolman issued instead.

Although forced to accompany the 'Grande Armée' to Russia, the detachment of Blücher Hussars attached to the Cavalry division Brugère greatly distinguished themselves. They were called up from the rear of the column to cross the Ula at

Kosziany, swam the river, and drove back the Russian Cavalry, capturing twenty officers, forty-five men, and many horses.

Again at Rüpki their gallantry saved Murat's life.

Of the combined regiment to which the Blücher detachment belonged, only twelve officers, all wounded, thirty-five men, and fifty-five horses returned from Russia.

The War of Liberation offered the regiment many opportunities to distinguish itself. It served with General von Bülow's corps in Holland and Belgium in 1814, and entered Paris on March 31 of that year.

On reorganisation in 1815, Hussars were armed with carbine, pistol, and sabre, each regiment having besides twenty-four rifled carbines per squadron.

In 1815 the regiment was with General Jürgass, 2nd Corps; and at Ligny, though not actively engaged, suffered severely from gun and rifle fire. Near Versailles it got into an ambush and was severely handled, just before the truce was declared.

On December 16, 1858, a hundred years after Blücher was born, the regiment received its dark red tunics back, and was invested with the style and title it is now known by.

In later years the regiment kept up its great reputation—in 1866 at Stresetitz, in the attack on the Austrian brigade Mergen.

Strange to say, in the Franco-German War of 1870–71, the Blücher Hussars, for the first time in that campaign, met the enemy at exactly the same place where it had met him in 1815, but with very different results, driving the French Cavalry back from Ormes to Ingré.

In 1889, at the close of the Kaisermanöver, the Emperor uttered these words: 'I have given my Cavalry the lance in order to make them invincible.'

What no one can give, the true Cavalry spirit, the secret of the success of 'l'arme blanche,' they have proved themselves to be possessed of in full measure, as these lines have attempted to show.

YEOMANRY TRAINING

A pamphlet issued by command of the Army Council, dated February 24, 1908, and entitled 'Training of the Territorial Force (Provisional),' indicates the lines on which the regulations for the training of the Yeomanry will be drawn up, of which the following is a brief *précis*.

GENERAL PROVISIONS

The Mounted Brigade Commanders will submit programmes of training, not later than November 1, for the approval of the General Officer Commanding-in-Chief.

Every latitude is given, so that the circumstances of each particular unit may be considered and the means of instruction adapted to the special conditions of every case.

The training is to be 'confined wholly to such elements as are essential in war.' It should aim at :

- (a) Producing an efficient body of officers and N.C.O.s to serve both as instructors and leaders ; and
- (b) Thoroughly instructing the rank and file, at first individually, and then in small tactical units.

The training is to be systematic and progressive, and confined to essentials.

Success will largely depend on the military knowledge and capacity as instructors of the officers and N.C.O.s. Periodical courses of instruction will, therefore, be held for them with regular Cavalry regiments.

The Adjutant and Permanent Staff will be employed to train recruits before they are finally passed on to their squadron commanders, and to assist generally the commanding and other officers in establishing an effective system of training. Their

presence, however, is 'in no way to relieve squadron commanders from the full responsibility for the training and efficiency of their units.'

RECRUIT TRAINING OF OFFICERS AND MEN

Recruit training will be as follows :

Officers :

(a) 40 drills, of which 20 must be performed before annual training in camp, failing which no pay and allowances will be issued ; or, 14 days with a regular unit before the annual training in camp, and 20 drills.

(b) The annual training in camp of his unit, unless excused by the G.O.C. Mounted Brigade.

(c) The recruit's course of musketry.

(d) In addition to annual requirements the recruit officer must obtain a certificate that he can ride sufficiently well to perform his duties.

Men :

(a) 20 drills before the annual training in camp, of which 3 days, of at least 3 consecutive hours, in field instruction must form part. Failure to perform the necessary drills entails forfeiture of all pay and allowances.

(b) The recruit's course of musketry.

(c) Annual training in camp, unless excused by the G.O.C. Mounted Brigade.

Arrangements will be made at all headquarters and detachment centres for the training of recruits under specially qualified instructors throughout the year. Recruits are to be encouraged to get through their training as early as possible in the year.

An officer or soldier is excused his recruit's course of musketry if he has already done it in the Navy, Army, Yeomanry, Volunteers, Royal Irish Constabulary, or Colonial permanent forces, and similarly he will be excused his recruit's drills if he

has served two months in his own arm in any of these forces, or for two years as an efficient in his own arm in the junior division of an officers' training corps.

SUBSEQUENT TRAINING OF ALL RANKS

After officers and men have completed their recruit training their subsequent training in each year will be as follows :

- (a) 10 drills to be performed before annual training in camp. Failing this no pay and allowances will be issued.
- (b) Annual training in camp.
- (c) Annual musketry course.

Note.—The 10 drills and the musketry are optional for field officers.

Mounted Brigade Commanders may, on the C.O.'s recommendation, excuse an officer or soldier from any portion of the annual training on account of sickness, duly certified, or any other urgent reason.

DRILLS

A drill is one hour's actual training.

Any number of drills up to 3 may be performed in one day. At least 3 days' work of 2 drills, or 2 days' work of 3 drills, should be performed by each man on ground away from drill-halls.

Training performed at drills should be of an elementary character, *i.e.* individual, troop or section training ; and though highly desirable, it is not essential that men should always be trained under their own officers.

Drills may be performed at any time throughout the year outside the annual training period, but obviously these elementary drills are best put in *before* the training.

Officers and N.C.O.s may count attendance at war games and lectures up to a maximum of 5 drills.

An officer or soldier temporarily absent from his own headquarters may, with the written consent of both C.O.s, carry out his drills with some other unit of his own arm.

A drill for which travelling expenses may be claimed should consist of at least 1 officer, 4 N.C.O.s, and 20 privates.

ANNUAL TRAINING IN CAMP

As a rule camps should be arranged by brigades.

Every officer and soldier will be required to carry out 'annual training in camp' for a period of not less than 8 or more than 18 days, and may be called out once or oftener for this purpose. A day's training is not less than 6 hours' work. Individuals may for sufficient reason be permitted to train with other units of their own arm,

Camps will be held between May 1 and September 30, and only where suitable ground for field training is available.

Training in camp should be progressive and more advanced than that carried out during 'drills,' as much time as possible being devoted to squadron training.

Advantage should be taken of the time in camp to exercise the men chiefly in field operations.

ADDITIONAL COURSES OF INSTRUCTION FOR OFFICERS AND N.C.O.s

Besides the recruit and annual training specified above, the following courses are *obligatory* for officers, unless excused in very special cases by the G.O.C. Mounted Brigade :

(a) Course of musketry before promotion to captain.

(b) 14 days' attachment to a regular Cavalry regiment within 2 years of promotion to major; or, if this is impracticable, 20 drills with a regular regiment may be substituted.

In addition to these courses, officers and N.C.O.s can, with the permission of the G.O.C., from whose training grant the

expense will be defrayed, attend *voluntary* courses, which will be subsequently specified.

Local schools for musketry and signalling will shortly be established.

TRAINING OF SPECIALISTS

Signallers and other specialists should be trained by officers of their own units. When funds admit, and it is possible for the men to attend, they should be attached for short periods to a training centre or regular unit.

Local arrangements should be made for training saddlers and artificers.

INSPECTION

The General Commanding the Mounted Brigade will inspect regiments during the annual training in camp, and certify to the County Association concerned as to the efficiency of each unit and the possession of the necessary articles of equipment and clothing.

Inspection reports on units will be so framed as to afford complete information regarding the efficiency and preparedness for war in all respects of the unit as a whole, and the capacity of the officers to act as instructors and leaders.

EFFICIENCY

To be reckoned efficient for the purpose of earning certain financial grants all ranks must carry out the annual training requirements above indicated, or be excused by competent military authority.

The efficiency of the unit as a whole is determined by the report of the inspecting officer.

In connection with the above, it will possibly be of interest to our Yeomanry readers to peruse the following extract from a circular issued over the signature of the Director of Military Education and Training, and embodying the views of the late

Lord Chesham, then Inspector-General of Yeomanry, as to the training of Yeomanry, at a time when the experiences of the war in South Africa were still fresh.

The same fundamental principle underlies both circulars, *i.e.* that training should be progressive, and confined to such elements as are essential to success in war; and the guidance given by Lord Chesham's circular appears to be still applicable to Yeomanry training, though much of the elementary preliminary training will now have been completed during 'drills,' and more time will be available for squadron training and field operations. The circular must, therefore, be read with that reservation.

With a view to preparing the men as far as is practicable for the conditions which may be existing on active service, we think that a bivouac for at least one night, combined (possibly) with some night operations, might with advantage be arranged.

A system which we venture to recommend to Yeomanry commanders is that practised in some regiments, of preceding field operations by a war game played the previous evening under the same general and special ideas; this is an application of the method adopted with such good results by Sir John French at Aldershot, of preceding his Army Manœuvres by a staff ride over the same ground, and verifying by the practical experiences of the former the theoretical solutions of the latter.

WAR OFFICE, LONDON, S.W.: May 22, 1903.

CIRCULAR MEMORANDUM

Annual Training of Imperial Yeomanry Regiments

The Commander-in-Chief, having had under review the Reports on the Training of the Imperial Yeomanry during 1902, observes an apparent want of uniformity of system in carrying out the Annual Training of regiments, which in some cases prevents the best results being obtained by all ranks during the limited period of training.

With a view to the force generally being trained on a uniform system, and in order to assist Commanding Officers in securing the fullest advantage of a course of field training in accordance with Appendix II., Imperial Yeomanry Training, 1902, Lord Roberts directs that the following instructions will be observed as a general guide in conducting the Annual Training of Imperial Yeomanry regiments.

1. The Annual Training should be divided into three parts :

- | | |
|--|--|
| (a) Preliminary training (4 days) | { Under troop and squadron officers and non-commissioned officers. |
| (b) Squadron training (4 days) | |
| (c) Regimental training, including tactical exercises and field practices. | |

(I.) During preliminary training the most elementary work under squadron and troop officers will be carried out, and should include instruction in horse management, fitting saddlery, rolling saddle blankets, saddling and unsaddling horses, fitting rifle buckets, and general instruction in matters connected with horses and saddlery, both by lecture and in practice.

This should be followed by troop drill, each troop being instructed by its troop leader (under the general superintendence of the squadron leader) in all the elements of troop drill, including wheeling, inclining, increasing or diminishing the front, duties of group leaders, dismounted service, occupying positions, and the details of outpost duties, and simple reconnaissance and patrolling.

(II.) During squadron training 1 day should, as a rule, be sufficient for squadron drill, which should include movements in line, squadron column, fours, and dismounted work. On the remaining 3 days, practice in advanced, rear and flank guards, and outpost schemes should be carried out.

(III.) The remainder of the time will be devoted to regimental training, tactical exercises, reconnaissance, outpost duties, all under the direction of the Commanding Officer.

NIGHT OPERATIONS

By MAJOR J. VAUGHAN, D.S.O., 10th *Hussars*

Advantages of night work—Essential conditions for success in night operations—Reconnaissance—Marching—Fighting—the Attack—the Defence.

‘SUCCESS in night work is mainly a result of practice and common-sense.’—*Cavalry Training*.

One of the greatest factors of success in Cavalry operations is surprise. To effect a surprise we must appear where we are not expected. To do this our movements must be unobserved. In certain cases, when covered by other portions of our forces or natural obstacles, we can move without fear of detection by daylight. Where such conditions are absent, and we desire to effect a surprise, we must move under cover of darkness.

Experience shows, moreover, that, although fatiguing to men, night marches are far less fatiguing to horses than day marches. The reason of this is that horses naturally take the little sleep that they require in the heat of the day, and move about to graze throughout the night. They do not, therefore, miss their natural sleep when marching by night, and are not liable to the heat, thirst, and exhaustion which they suffer when marching by day.

Therefore, for reasons of economy in horseflesh and for tactical reasons, night operations are very often advisable for Cavalry.

To work smoothly and efficiently by night the following points require careful attention :

- (1) The routes must be very carefully reconnoitred by daylight, or very well known from accurate maps.
- (2) Local guides should be made use of, if possible.

(3) Night marches should only be employed for certain definite enterprises.

(4) The operations should be so calculated that the troops that have made a night march either achieve success, or are relieved in the fighting line during the next day by fresh troops. In other words, twenty-four hours' continuous effort without sleep is the maximum to expect from any one unit.

(5) The enemy must be more or less located beforehand, and precautions taken to prevent a collision during the march.

(6) The rise and setting of the moon must be considered, in addition to the other factors which affect the rate of marching.

To go more into detail, the subject naturally divides itself into (I.) Reconnaissance, (II.) Marching, (III.) Fighting.

(I.) RECONNAISSANCE

The officer responsible for directing the march should, if possible, personally reconnoitre the route by daylight. This reconnaissance for night work requires some practice, the main things to note being : places where wrong turns might be taken, portion of the route that might retard the march, landmarks that should be visible against the sky-line from the hollows—not, as for day work, distant objects visible from the ridges—the numbers of streams and ridges to be crossed, stages into which to divide the march, and convenient halting-places.

If it is impossible to reconnoitre personally by daylight, a very close study of the map must be made and the observations committed to memory, so that the whole route can be seen in the mind's eye before starting. To facilitate this the march should be mentally divided into stages, according to changes of direction and topographical features, or, in the more civilised countries, cross-roads and towns or villages.

Patrols should be sent to observe all bodies of the enemy believed to be within striking distance, and all possible routes by which an enemy might advance, due regard being given to natural features in the selection of objectives for such patrols.

Connecting-posts should be established to ensure the rapid transmission of reports from these patrols to Headquarters.

Patrols should also be despatched in advance of the column to observe the particular body of the enemy or the locality which is the objective of the column.

All these patrols should be furnished with an itinerary of the march. As a rough rule, three miles an hour can be maintained by a squadron across the veld or on country tracks in India, but with a bright moon and good roads this may be increased to six miles an hour. With larger bodies the pace, of course, decreases proportionately to the size of the column.

Protective Reconnaissance must be very simple. A couple of scouts with the officer directing the march in front of the column, a couple in rear, and in open country a couple on each flank. In enclosed country, hills, or forests the flankers are out of the question and must be dispensed with.

All these scouts should ride just out of earshot of the column, as it is by their ears that they will first detect any hostile party, and these they cannot use if already filled with the jangle of the marching troops.

(II.) THE MARCH

Very careful staff work and strict discipline are necessary to ensure an orderly night march. Otherwise units lose touch and straggling becomes a serious evil.

The following precautions are essential :—

(1) The staff of the force must be increased and each individual told off to a specific duty. The numbers required vary according to the darkness of the night, the intricacies of the route, and the quality of the troops.

(2) Occasional halts should be made at stated places, during which the column can be closed up and reports made that the rear is closed up, or otherwise.

(3) A small working party should be attached to the directing staff for the purposes of blocking roads not to be followed,

clearing the way round villages, improving fords for guns, breaking down fences, ramping banks of irrigation cuts, etc., according to the nature of the country. The men of this party require a few axes, picks, and spades, which they can carry in their hand across the saddle.

(4) Orderlies should be stationed at points where any unit might miss the way, and wait till the rear unit has passed, reporting themselves again at Headquarters at the first halt.

(5) Squadron commanders should ascertain that all rifles are unloaded when parading for a night march, and men should know that they are not to load without orders. Otherwise some sleepy or nervous man will let off his rifle at an inconvenient moment. Smoking and talking are, of course, prohibited.

(6) Men should ride along the sides of metalled roads where such are used. On a metalled road a squadron can be heard moving at a distance of from two to three miles on a still night.

(7) The rattle of accoutrements must be diminished by each man observing what makes a noise, and the judicious use of horse rubbers or grass bands.

(8) Villages and towns should be avoided by making a forward cast round them. When approaching a village the working party should be sent forward to improve a route round the outskirts. In India, villages cause great noise and delay with their barking dogs and narrow, winding alleys, very likely obstructed by bullock carts outspanned in them. Moreover, there is always the possibility of the enemy quickly hearing of a force having passed through a village, whereas if a detour is made the march will very likely not be detected by the natives till well after sunrise.

(9) If the operations are likely to lead to a daybreak attack a position of readiness must be selected as the first objective of the march, and at least an hour allowed between the arrival there and the time for the attack. During this hour the commander will reconnoitre and make his plan, while the horses can be fed and the men rest. If the night is cold, men may be

allowed to march in cloaks, which they can retain till they take the nosebags off and get ready for business.

(10) All the troops should know the pre-arranged signal for the force, which should be a low whistle of the regimental or some simple trumpet call.

The order of march will usually be column of half-sections, as this formation permits of the passage of fords and narrow cart tracks, but in open country column of troops is of course better.

The officer commanding the leading unit should follow the officer directing the march at the *greatest distance* at which he can observe him. He must on no account talk to him or otherwise distract his attention. All the rear units must march as close up as possible, and there must be an officer in rear of each squadron to keep it closed up. Dismounting and leading should not be used at night, as it greatly diminishes the pace and increases the straggling. If the men are very cold, however, and there is time to spare, it may be done; one man should then lead two horses, and the other man drive them on from behind.

(III.) THE FIGHT

(a) *The Attack*.—Fighting in the dark is at best a fluky affair, but the odds are in favour of a resolute attack where a surprise is effected. The most general practice is to commence the attack with the first signs of dawn, as the benefit of a surprise is then possible without the confusion of a fight carried on entirely in the dark.

The enemy will have some system of security. The first step is to locate one of his posts. Some good men should then be sent on foot to stalk the sentry of this post and seize him without firing or letting him fire. The remainder of the post can then be captured, probably asleep. This was often done successfully in the American Civil War. If any noise occur during this preliminary operation, no further attempts at concealment should be made, but the enemy's camp must be rushed at once so as to get the benefit of surprise. This advance will be made

mounted unless hilly country or excessive darkness forbid it. Horses are, however, much better in the dark than men, and it is possible to gallop over fairly rough country at night.

Night fighting must be simple.—If elaborate plans are made, they generally fail. The best plan is to divide the force into two portions. The duty of one portion is to rush the enemy's camp or position. The other portion remains under the Commander's hand to pursue, intercept the enemy's retreat, meet any counter-attack, or otherwise act according to eventualities. Firing should be avoided as much as possible at night. Once troops are dismounted firing they waste their ammunition, which they may badly want when daylight comes, and hit nothing. It is also very difficult to collect them, and get them to advance again. Moreover, the enemy gets time to meet the attack, and, as he is very possibly entrenched, then has the best of the argument.

In our night affairs with Boers and Kaffirs plans were generally too complicated. An endeavour has been made to entirely surround the enemy. Very often some unit has not got to the right place at the right time, or has made a noise and disclosed its presence, or someone has commenced the attack too soon. It is for this reason that the above tactics are recommended—viz. to leave a bolt hole open, and trust to completing the disaster to the enemy in a running fight.

(b) *The Defence.*—If we admit the possibility of the success of a surprise attack, we must prepare ourselves to repel a similar attack on the enemy's part.

Our safety lies in a good system of security and the counter-attack. On several occasions in the South African war of 1899–1902 daybreak attacks were successful owing to the want of patrolling in addition to the ordinary outposts.

(1) The scouts of our contact troops or squadrons should be in touch with all hostile forces within striking distance.

(2) Patrols—standing patrols for choice—should be observing all routes by which an enemy can advance. The enemy will cross rivers and hills by the easiest fords and passes at night, so

there should not be much difficulty in knowing where to send these patrols.

Every unit in camp, with the exception of the inlying piquet, must be told off to a portion of the perimeter of defence.

All units must have alarm posts, and every man must know exactly where to go and what to do in case of alarm.

Not less than a third of the force should be told off as 'inlying piquet.' Its duty will be to saddle up and assume the offensive in the counter-attack.

The officer commanding the inlying piquet should reconnoitre the vicinity of the camp before dark and make up his mind what he will do if the enemy attacks from any direction, and inform his subordinates of his various plans.

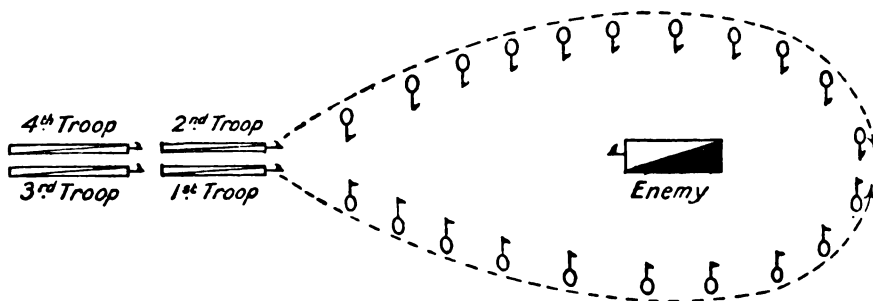
If there is any reason to apprehend a night attack, the camp can be strengthened by entrenchments, sangars, or thorn scherms, or transport vehicles can be run forward and connected by wire or ropes, or other improvisations made.

(c) *The Chance Encounter*.—It has happened that hostile forces or parties have run into one another in the dark, and it will happen again.

Here, as at most other times, that good Zulu motto is applicable, 'If we go forward we die, if we go backwards we die, let us go forward and die.'

A little bit of drill is suggested to meet this eventuality, drill that will become automatic when an enemy is suddenly met and there is scarcely time to issue orders. The leading unit should always deploy to its right, the second to its left, and so on. In any case the idea must be to surround the enemy immediately, and if daybreak is at hand we must also seize neighbouring ridges, so that the morning light may disclose us sitting round the edge of a basin with the enemy in the centre at the bottom. The following drill is suggested for capturing hostile parties; it was used successfully to surround Kaffirs in the native war in Rhodesia in 1896, and is recommended for its simplicity. Instead of marching with the leading troop of a squadron in

half-sections, march with two troops abreast, each in files. When the enemy is encountered the head of each troop at once diverges at a gallop, and gallops round the enemy till they meet again, when each individual turns inwards on his own ground at a whistle signal from the leader. Thus :



In any case, the side which has a plan and acts promptly in a chance encounter in the dark will probably get the best of it.

Peace training for night work will be dealt with in another paper.

LANTERN LECTURES

(‘CAVALRY JOURNAL’ SERIES)

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THE NEW CAVALRY SWORD AND MOUNTED SWORDSMANSHIP

By MAJOR R. M. POORE, D.S.O., *7th Hussars*

A short description of the new sword and the objects for which it has been devised. Various opinions on the subject of the most effective use of the sword by the mounted man.

For a long while the sword with which the Cavalry is now armed has been universally condemned as a heavy and badly balanced weapon, unsuitable for both cutting and pointing.

A Committee was formed last year, under the presidency of our present Inspector-General of the Cavalry, for the purpose of devising a more practicable weapon. The result of this is a sword having a straight and rapier-like blade, and a handle of an entirely new design, great stress being laid on the perfection of balance, to arrive at which the handle had to be lengthened, with a certain amount of weight in the pommel.

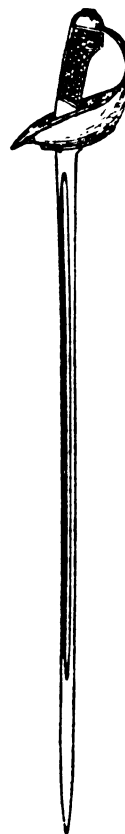
With regard to the shape of the blade, it was necessary to consider the best mode of attack, and pointing was held to be the most effective ; therefore, a straight blade has been adopted. In order to facilitate this blade being held in the prolongation of the fore-arm, it has been set at a slight angle to the handle.

The shape of the handle is designed to assist the soldier to grasp the sword in the correct manner, which cannot be done with the present pattern, and was derived by the taking of a putty impression. But, in spite of this, there are those who state that they find it difficult to grasp the handle properly. It is perhaps suggestive that these complaints may be the outcome of want of knowledge in swordsmanship. The Cavalry training

now embodies the sword drill for the new sword, and as soon as practice sabres are issued swordsmanship throughout the Cavalry should make rapid strides.

It is hoped that Government will insist on the new swords being well tempered and made of nothing but the very best steel, but at the same time we must be prepared for a certain number of breakages, as, no matter how good a sword may be, it is bound to sometimes break under severe tests. An unbreakable sword cannot be manufactured, unless it be made so heavy as to become an utterly unwieldy weapon. It would no doubt be quite exceptional if on active service one could not replace a broken sword.

A good deal has been written lately on the opinion of Brigadier-General John Jacob, C.B., but about this officer Sir Richard Burton says he was 'accustomed to base the strongest views, the headstrongest opinions, upon a limited experience of facts'; and with reference to his knowledge of swordsmanship Sir Richard adds, in his remarks on 'Changes in the Indian Army': 'He knew nothing of the sword beyond handling it like a broomstick; therefore he would not allow it to be taught to his men, many of whose lives were thus sacrificed to his fatal obstinacy. He utterly condemned the use of the point, which is invaluable throughout India, because the natives neither make it nor learn to guard it. His only reason for this dogmatism was the danger of the thrust by his own inexperienced hand. In a few single combats, after running his man through the body, he had risked being disarmed or dragged from his horse. He probably never



Length of blade, 35 ins.
Point of balance, $2\frac{1}{2}$ ins.
from hilt.
Weight, about $2\frac{1}{2}$ lbs.

knew, and, with characteristic tenacity, he would not have changed his opinion had he known, that Lamoricière proposed to take away the edge from the French trooper's blade; that the French heavies still use the straight sword, best fitted for the point; and that the superiority of the latter to the cut is a settled question throughout the civilised world.'

The sowar's curved blade is, no doubt, a very effective weapon in the hands of our native Cavalry soldiers, and several instances can be quoted as to its having been used by them with deadly effect. In passing it may be noted that a sword of this description (*i.e.* for cutting) should be a light or handy, and not a heavy weapon, as some aver. It is, however, doubtful whether a cutting sword would be of the same value in the hands of a British soldier, possibly because a native is quicker and more supple in his movements than an Englishman. This is very pronounced when the two races take part in games together.

Colonel W. F. Stevenson, R.A.M.C., in his interesting book on *Wounds in War*, says: 'The left side of the body being more exposed, sword wounds are in the majority of cases found to be inflicted on the left side of the head and neck, and on the left upper extremity. As a rule, they are not of great severity, nor do they cause much immediate danger to life, especially if produced by the European weapon, unless they are accompanied by fracture of the skull or implication of large vessels. . . . Occasionally, however, even the European sword, when wielded with great force, especially by a Cavalry soldier, and when the momentum of the horse is added to the strength of the man's arm, will slice away large portions of the soft parts and fracture bones.'

The sword cut, delivered by the ordinary soldier anywhere on the body, is unlikely to penetrate the clothes of an adversary, much less any additional impedimenta, such as a bandolier, water-bottle strap, etc.

The late Colonel Knox, who commanded the 18th Hussars, told me he witnessed a troop of his regiment charge about an

equal number of Boers. These two bodies on meeting circled round one another as they might have done on a field day, but the ultimate result was only two Boers slightly wounded. Again, at the Vet River engagement, one Boer was attacked by five cavalrymen, and was ultimately made a prisoner, badly bruised from the blows of the swords, but not wounded.

Thus the contention is that if the sword is used for cutting purposes it is more likely to cause bruises, which unless delivered on the head or neck are not likely to prove knockout blows. No doubt a native 'talwar' might prove a little more effective than this; still, when a man commences cutting or slashing about, he is apt to become wild and lose all method.

It is interesting to note that Colonel Stevenson mentions that only nine cases of sword and bayonet wounds in the neck occurred in the American war, resulting in but one death, and only thirteen cases among the Germans in 1870-1. He gives the following percentage of similar wounds (in all parts of the body) among the total number of casualties:—

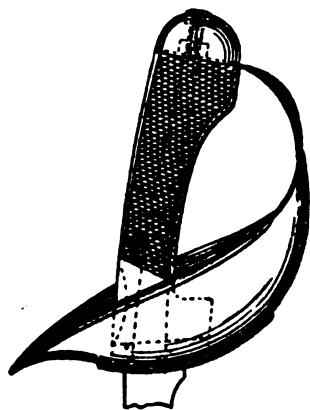
1·5 of the English	} in the Crimea.
3·0 of the French	
1·4 of the Germans in 1870-1.	

It must be noted that these returns include bayonet wounds, which are probably by far the greater number.

General Jacob's reference to the violence of the shock against the hilt of the sword when pointing is a matter of great consideration, but if the handle of the new sword is properly and firmly grasped, this and the difficulty of withdrawal of the blade should, to a very great extent, be obviated. A mounted swordsman should always attack at a gallop, but in no case should he be taught to withdraw the sword. As soon as he has pierced his adversary, the body of the latter will swing round as he passes, and the sword will withdraw with the separation of the horses. It is an acknowledged fact that a point will reach an opponent before a cut, and, as all medical evidence shows, a

wound from the point is far the more serious of the two. It necessarily follows that if a mounted body exclusively uses the point, much greater injury to the adversary will be the result.

The following example of what happened in the Mutiny will bear this out. Near the village of Bijapoor on September 4, 1858, a troop of the 8th Hussars, numbering 47, charged a force of native troops, with the result that 37 bodies of the enemy were afterwards counted on the spot. (*Vide* Indian despatches.) The officer who commanded this troop told me he had particularly instructed his men to use the point. Most of them did so, and had they all conformed to the order a still greater amount



of execution, I am told, would have been done. The point being the first to reach will administer a shock and prevent a contemplated cut from getting home. To illustrate this, an officer who served during the Indian Mutiny, in describing a fight, told me that he was attacked by a native swordsman. He used the point himself and got the attack home first, whereupon his opponent collapsed, and as the latter's sharp sword fell it did so across the officer's

bare wrist, inflicting a wound. Had the officer not used the point he would inevitably have been more severely wounded or killed.

In a short treatise like this it is difficult to enter into the art of mounted swordsmanship, which differs very materially from swordsmanship on foot, although there is too great a tendency to judge the one with the other from the same standpoint.

THE CAVALRY OF ROUMANIA

By **LIEUTENANT BERTRAND STEWART, *West Kent (Q.O.)***
Yeomanry

The organisation, equipment, and horsing of the Roumanian Cavalry—Some account of the Cavalry Manœuvres in 1907—Machine gun on Motor *versus* Cavalry.

ROUMANIA can make the proud boast that she has, in comparison with her population and military expenditure, the largest number of trained men of any of the smaller Powers, while the proportion of Cavalry to Infantry on a war basis—namely, 1 to 10—is considerably higher than is the case with any of these Powers.

Apart from their excellent qualities, the Roumanian Cavalry are especially interesting because they are divided, as with us, into two large bodies, one of which is trained on a permanent and the other on a semi-permanent basis.

The permanent Cavalry consist of : six regiments of Roșiori (Red Hussars) and two regiments of Calarași (Black Hussars). Each of these regiments has four service squadrons, one dépôt squadron, and a non-combatant section.

The semi-permanent or 'Schimbul' Cavalry consist of nine regiments of Calarași. Each of these regiments, except one, has one permanent and four semi-permanent squadrons, as well as a non-combatant section.

COMBATANT DUTIES

Six of the regiments of permanent Cavalry, usually the six Roșiori regiments, as on the occasion of the 1907 Manœuvres, form the Cavalry Division, which is divided into three brigades of two regiments each.

The semi-permanent regiments are also brigaded, two regiments in each brigade. One brigade is attached to each of the four army corps.

TERM OF SERVICE

Roughly speaking, the term of service for the Cavalry in the active Army is as follows :

Permanent Cavalry : three years colour service ; four years permanent furlough ; two years in the reserve.

Semi-permanent Cavalry : four years colour service ; three years permanent furlough ; two years in the reserve.

A man in the semi-permanent Cavalry must on joining either provide a horse or deposit the cost of one, which will then become his property on discharge.

The age at which men join the Cavalry as conscripts is 21 years, but they can enlist voluntarily at 18.

PERIODS OF TRAINING

Permanent Cavalry : throughout the year.

Semi-permanent Cavalry : first year, 90–100 days ; second to fourth years inclusive, 15–30 days, as well as Sundays from February to November.

In the semi-permanent Cavalry recruits go through their preliminary training of 60–70 days in the spring. In the autumn they do 15 days' musketry training and 15 days in regimental and brigade training and manœuvres.

TRAINING

Each army corps has its camp of instruction, where the troops of that corps go in turn for tactical exercises and musketry.

In July, after the corn harvest, each arm carries out regimental exercises and small manœuvres, which are continued up to the time of the autumn manœuvres. These take place in each division in September and last fifteen days. There is thus

a systematic progression from manœuvres between small units to manœuvres between brigades, while in the army corps which takes part in the royal manœuvres the operations are between divisions.

ARMAMENT

Permanent Cavalry : front rank, lance and sword ; rear rank, carbine and sword.

Semi-permanent Cavalry : both ranks, carbine and sword.

The Cavalry, as is apparent from their armament, favour the employment of *l'arme blanche* more than the fire-arm.

The carbine is carried slung on the back, and is kept steady by a small strap attached to the waist-belt, the sword on the saddle, and the lance in a bucket. No slings were noticed on the lances, which are often carried at the trail.

The Cavalry carry sixty rounds of ammunition per man.

SADDLERY AND EQUIPMENT

The saddlery and equipment are as follows :

Saddle, rug folded in six, large wallets full of miscellaneous articles, mess tin strapped on the off wallet, cloak on back of saddle, quarter of tent rolled on top of cloak, hay net, picketing peg. Every fourth man carries a collapsible canvas bucket strapped on to one of the wallets. A few of the Cavalry were seen to be using a numnah 1 inch thick.

HORSES

The country-bred horses, beyond the small number which are bred at the Stud farms, are unsuited for military purposes, except transport and the mountain battery. The Cavalry horses are, therefore, purchased almost entirely in Hungary at the average price of £20, while those for the Artillery come mostly from Russia and cost about £24. Both Cavalry and Artillery horses are lighter in bone than our horses. The average age at which

they are taken into the army is 4-5 years. In winter they are supplied with rugs and are not clipped.

ADMINISTRATION

The 'administration' of a Cavalry regiment, like that of all the other regiments of the Roumanian Army, includes four services: pay, clothing, supply, and preparation for mobilisation, and is under the direction of one of the staff of the G.O.C. each army corps. For the Cavalry this officer is a major, and for the other arms a colonel. Pay and clothing are managed by non-combatant officers, who are called administrative officers, while the other two are under the direction of combatant officers.

The whole of the supply is carried out by contract, except as regards the clothing and the bread, which are supplied from a central dépôt at Bucharest and from the divisional supply dépôts respectively.

RATIONS AND FORAGE

The full ration for the men when in the field is: Bread 1,180 grammes (36 oz.), or biscuit 800 grammes (26 oz.), meat 400 grammes (13 oz.) and vegetables cooked as a soup twice a day, as well as tea.

The forage ration in barracks is 4 kilos. (8 lbs.) of oats, which is increased to 5 kilos. on manœuvres, 5 kilos. of hay and 3 kilos. of straw.

CAMPS AND BIVOUACS

Owing to the lack of stabling accommodation in villages, camps or bivouacs instead of billets are the general rule with Cavalry and Artillery. The great mass of the soldiers are peasants, who readily adapt themselves to the conditions of camp life, while the others, who have been bred in towns, gradually become accustomed to it.

RAILWAY TRANSPORT

In the flat portion of the country a Cavalry regiment, consisting of some 24 officers, 500 men, and 480 horses, has been transported in only two trains.

Eight horses are carried in each covered truck, four at each end, with their heads towards the centre. There are openings in the sides of the trucks for ventilation, and the sliding doors can be securely fastened by means of a catch and yet leave some 6 inches for further ventilation. The men sit in the centre of the truck, and sling their saddles overhead.

CYCLISTS WITH CAVALRY

About 100 cyclists were attached during the manœuvres to the three regiments of invading Cavalry. They were used both for tactical reconnaissance and to cover one of the wings of their Cavalry. Only small patrols appeared to be engaged on reconnaissance duties. On one occasion they were seen to be acting as escort to the Horse Artillery, and apparently watching the inner flank of their Cavalry, who were engaged in an attack.

The cyclists were often able to ride their bicycles across country owing to the comparatively even surface of the ground. No motor cycles were used.

MANŒUVRES, 1907.

The Manœuvres of 1907 were particularly interesting, in that they gave considerable scope for testing the Cavalry in their duties.

H.R.H. the Crown Princess of Roumania—who, as is well known, is an English Princess—was present throughout the Manœuvres. Her Royal Highness is the Colonel of the 4th Roșiori, and not in name only, since she takes the very greatest interest, and is well versed, in all Cavalry matters. On

several occasions during the Manœuvres she led her regiment to the charge.

The Manœuvre area was in many ways an ideal one for Cavalry—great rolling plains with hardly an obstacle in any direction—nothing, in fact, between the Danube and the Black Sea. A Cavalry leader studying his map had, from a tactical point of view, no defiles to consider—no rivers—no mountains—just the shallow valleys and the dips here and there which would give him shelter were it not for the tell-tale dust which rose in clouds owing to the five months of drought. An Intelligence Officer's principal order to his scouts would be : ' Look for dust ! '

The following is a short summary of the Cavalry operations :

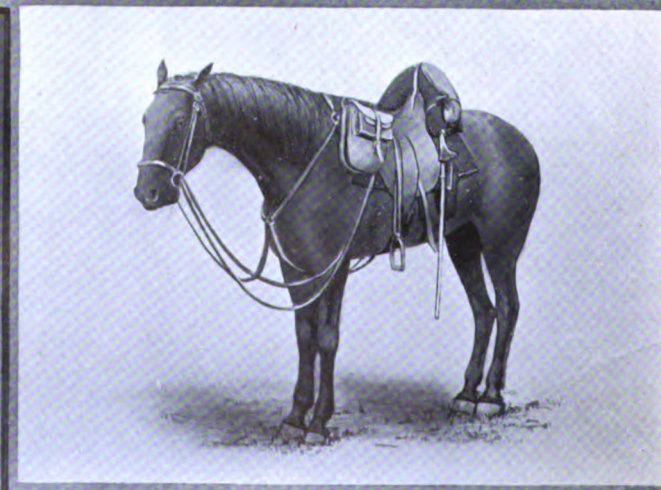
1st Day.—The Cavalry Division (six regiments), marching from the Danube, advanced to drive the invading Cavalry (three regiments) back into the Black Sea, whence in theory they came.

The service of reconnaissance as we understand it (sec. 146, ' Cavalry Training ') was not carried out by either side. With the exception of a few combat patrols sent out to the front and flanks, the Cavalry Division marched, as far as could be seen, massed in two bodies, with their two horse-batteries on a flank. One of these bodies, when crossing the crest of a hill, came in sight of the enemy, who had taken up a position some two miles ahead and whose Artillery at once opened fire. While one of the batteries of the Division wheeled back behind the hill the other replied. Meantime, the three regiments which had crossed the crest remained some time in the open before moving forward to the attack. At first they trotted for a considerable distance, despite the fact that a battery was firing at them rapidly, then increased their pace, and eventually bringing their lances to the engage swept up a steep slope in two lines, all the men cheering. There was no counter-charge from the top of the slope, and the enemy's Cavalry fell back.

2nd Day.—The general scheme of the Manœuvres unfortunately prevented the Division from following up its initial success



THE CAVALRY OF ROUMANIA.



and driving the enemy's Cavalry behind the screen of his Infantry, as well as from making a dash for his base. Accordingly, the two Cavalry forces again advanced to meet one another.

The Cavalry Division halted for some time in mass and in a position where apparently they were visible, and also within range of a ridge held by the enemy. Subsequently they drove in some detached posts, and then, seeing on some rising ground a battalion of Infantry, most of-whom were roughly entrenched, they charged.

After the Division had been again massed, the commander, seeing the enemy's three regiments advancing, launched four of his regiments to the attack. The opposing commander at once deployed, and met the attack at a gallop front to front. Neither side having apparently attempted to gain any advantage by manœuvring, the Umpire decided in favour of the four regiments, and the three fell back.

Simultaneously with this attack the Divisional commander, observing some Infantry who were partly entrenched, and who might have brought their fire to bear on his four regiments as they charged, launched his two remaining regiments to the attack, thus leaving himself without any reserve in hand.

As regards formation, the general rule appeared to be that a Division attacked *en trois lignes* and a brigade *en deux lignes*. In the second attack on Infantry, one squadron led the charge apparently with the view of drawing the fire on itself, and the other squadrons followed in double echelon.

The necessity owing to the dust of keeping the Horse Artillery as well as the reserve on the windward side of the attacking troops, as indicated in 'Cavalry Training,' was clearly exemplified.

3rd Day.—On this day the opposing Infantry were in close touch, and the Cavalry Division did not act independently, but was disposed as follows :

On the right wing of the two Infantry columns was one regiment of Cavalry, on the left wing three, and in the centre

two. The 'special idea' stated that the mission of these two regiments was to maintain communication between the two columns. As far as actual 'communication' went, one squadron or at most two could have undertaken this work, and, therefore, the commander presumably ordered this disposition so as to prevent his centre being cut. Though opportunities offered, the fire action of these two regiments was never used, but they joined another regiment in a forlorn hope, and charged a body of unbroken Infantry advancing to the attack. Nothing of importance was effected by the remainder of the Cavalry Division, who were thus left to meet the three regiments of the invading force.

MACHINE GUN ON MOTOR *versus* CAVALRY.

An interesting incident occurred when two squadrons were halted near a field of Indian corn. Prince Georges Bibesco, who carried a machine-gun in his 40-h.p. car, came up under cover of the corn, and, unlimbering his gun, opened fire on the squadrons. When after a short time they detected their assailant they at once charged, but Prince Bibesco, 'limbering up,' drove his car at top speed over the open country and gained rapidly on his pursuers. He then unlimbered and fired on them as they galloped towards him, limbering up when they came close. He even repeated this manœuvre again before they abandoned the pursuit. On another occasion he drew up behind a stone wall and opened on some Cavalry as they charged up towards him.

What view the Umpire would have taken of his chances had the Cavalry dismounted a troop and fired on him one cannot say, since they only attempted to reach him with *l'arme blanche*.

In conclusion it may be said that nothing could have exceeded the kindness and hospitality shown on all sides to the British officers who were present at these Manœuvres.

REGIMENTAL BENEFIT SOCIETIES

By **LIEUTENANT-GENERAL R. S. S. BADEN-POWELL, C.B.**

General Baden-Powell draws attention to the need there is in the Service of Regimental Benefit Societies, a boon not only to the old soldier, but to past and present officers, in dealing with the numerous appeals which come before them. The rules of the 'Black Horse Association' are given as an assistance to any Regiments who may be contemplating such a Society.

OF the crowding and shivering unemployed men who may be seen any night after midnight receiving their dole of food on the Embankment, some 40 per cent. are said to be old soldiers. Many of these have told me how, when too late, they have recognised what golden opportunities they have missed while in the army of saving up money for their future use in civil life.

This ought to be a warning to men still serving, and should be impressed upon them by their officers. The number of appeals which one receives from day to day from ex-soldiers wanting help is distressing. It is true that a proportion of these is entirely fictitious. I have lately had three purporting to be from ex-N.C.O.s of my old regiment, detailing many small facts about themselves and about the regiment, which seemed to be proof that they were genuine cases; but on inquiry one found that these histories had been sucked out of them by astute and apparently friendly strangers, who then wrote representing themselves to be these N.C.O.s, and no doubt reaping a goodly reward.

This strain is a bad one, chiefly because so many officers are somewhat simple and believe the stories and send contributions. But there are also plenty of genuine cases of men brought low through no fault of their own, and it would be a great blessing

to them and to the ex-officers of the regiment, who at present are the recipients of continual appeals for help, if some Regimental Fund or Benefit Society were started in every regiment, from which such cases could be relieved. A fund of this kind has already been started in many corps, not only to the benefit of the men concerned, but to the benefit of recruiting generally.

A good pattern of work has been outlined in a recent issue of the *Black Horse Gazette*, a regimental paper of the 7th Dragoon Guards. I quote it here for the benefit of those regiments who may be contemplating so good and useful a step:—

BLACK HORSE ASSOCIATION

The following rules were passed at an Officers' Mess meeting held at Canterbury on January 7, 1908 :

Rules of the Black Horse Association

President.—Major-General Sir H. P. Ewart, G.C.V.O., K.C.B., Eq.

Designation.—1. The Association shall be called 'The Black Horse Association.'

Honorary Treasurer and Secretary.—2. That a past Officer be appointed Honorary Treasurer.

2a. That a past Warrant Officer or N.C.O. be appointed Secretary with remuneration.

Objects.—3. To form a register of all W.O.s, N.C.O.s, and Men who have served in the 7th Dragoon Guards, and to add to the roll as men leave the Regiment.

3a. To grant temporary assistance to members who may be in indigent circumstances and unable to earn their livelihood through no fault of their own.

3b. To help to find employment for members.

3c. To get into homes, hospitals, etc., all deserving cases.

3d. To get into schools, etc., all eligible children, and especially orphans.

3e. To foster a feeling of *esprit-de-corps* amongst all ranks, past and present, and to keep up connection with old comrades.

Membership.—4. The membership shall be open to all Officers, Warrant Officers, N.C.O.s, and Men who have served, or are serving, in the 7th Dragoon Guards.

4a. Wives and widows of above who were married on the strength whilst their husbands were serving in the 7th Dragoon Guards.

4b. All children of above, whether born whilst their father was serving with the Regiment or not.

Working Committee.—5. That there be a Working Committee of five members (and the Secretary as *ex-officio* sixth member) to be selected at each annual meeting.

Election of Honorary Treasurer and Secretary.—6. That the Honorary Treasurer be elected annually at the Officers' Regimental Dinner.

6a. That the Secretary be elected at the same time from names presented by the Honorary Treasurer.

Chairman.—7. That the Working Committee select their own Chairman.

Subscription.—8. Only Officers, past and present, to subscribe (*vide* King's Regulations, paragraph 668).

8a. Past and present Officers to subscribe £1 1s. or upwards annually on a Bankers' Order Form.

Donations and Gifts.—9. *Donations* of the smallest amount will be very gratefully received from W.O.s, N.C.O.s, and Men who have served in the Regiment, or from any other source. (Donations for the present should be addressed to Adjutant, 7th Dragoon Guards.)

9a. That entertainments, sports, concerts, etc., be held from time to time by the Regiment, or Squadrons, with a view to the proceeds being given to the funds of the Association.

9b. Gifts of clothing, books, periodicals, tobacco, etc., will be very gratefully accepted by the Committee, and carefully distributed to deserving cases. (These should be addressed for the

present to Mr. C. Birt, Westminster Dragoons, Elverton Street, Westminster, London, S.W.)

Moneys to be placed in Bank.—10. All moneys of the Association to be placed in a bank in the name of the Honorary Treasurer, and all gifts to be placed on an inventory, which should be submitted to the Honorary Treasurer.

Annual Report.—11. That an annual report be drawn up each year to December 31, showing in detail all subscriptions, donations, etc.; any remarks by the Committee, number of cases assisted during the year, members for whom employment was found, children in homes, etc., institutions subscribed to—to be produced at the annual meeting and circulated to members through the *Black Horse Gazette*.

11a. The accounts shall be audited by a chartered accountant, prior to the annual meeting.

Assisted Cases.—11b. That a statement of all assisted cases during each month be forwarded to the Regiment monthly, for posting up in messes, institutes, barrack rooms, etc., and any discrepancies or cases wrongly assisted should be at once brought to the notice of the Secretary. Special note will be made in this report of any case or cases which the Committee consider unworthy of further consideration on account of bad character, etc.

Annual Meeting.—12. That an annual meeting, to which all ranks are invited, be held in London each year on the afternoon of February 20, or when that date falls on a Sunday, the meeting shall be held on February 19.

Veterans' Dinner.—12a. A veterans' dinner will be held after the annual meeting at the Holborn Restaurant. Tickets 4s. each, inclusive. Members wishing to purchase these tickets should apply to the Secretary by February 6. No charge to be made against the fund on account of the dinner.

Notification of Discharges.—13. In order to help the Committee in identifying and investigating cases, a form to be printed as shown below and sent to the Secretary by the Adjutant for each man who leaves the Regiment *on discharge*.

1. Regimental No., Rank and Name.
2. Service with the Regiment.
3. Character on discharge.
4. Medals (if any).
5. Wounds (if any).
6. If discharged as medically unfit, or otherwise, giving reasons.
7. Number of cases of drunkenness recorded in last three years of service.
8. Number of cases of drunkenness recorded in last six years of service.
9. Age on discharge.
10. Pension (if any).
11. Address.
12. If married or single, giving age of wife, and employment prior to marriage.
13. Children (if any), giving age and employment (if any).
14. Special qualifications (if any) for civil employment.
15. Any special remarks.

Meeting of Committee.—14. That all cases be submitted to the Secretary, and be dealt with by the Committee meeting to be held monthly on the third Saturday of each month. All applications must be made on the form shown in paragraph 24. Place will be notified later.

Investigating Cases.—15. The Committee in investigating cases have the power to reject all applications from members whose characters whilst serving with the Regiment or since leaving the army have been unsatisfactory.

Urgent Cases.—16. The Secretary has full power to deal with any case of urgent necessity, apart from the meeting held monthly, and the Officer Commanding the Regiment with cases of urgency, reporting subsequently to the Secretary.

Grievances.—17. Members having grievances or any propositions to make must communicate with the Secretary.

Books to be Kept.—18. The Secretary will keep the following books :—

- (a). Cash book.
- (b). Postage book.
- (c). Diary of cases.
- (d). Roll of members.
- (e). Minutes of meetings.
- (f). Inventory book of property.

Cases considered on Merits.—19. It should be clearly understood by all members that all applications, whether in writing or personal, will be considered on their merits and no favour will be shown to local applicants.

Voting Papers.—20. The Committee appeal for the voting papers of Officers having votes for benevolent institutions, especially the following :—

The Royal Cambridge Asylum.
The Royal Soldiers' Daughters' Home.
The Royal Caledonian Asylum.
The Royal Military Benevolent Fund.

The Committee would also gladly receive letters for hospitals, convalescent homes, etc.

Employment.—21. It is the duty of all members to assist the Committee to provide employment for members by communicating the particulars of vacant places which may come under their notice, and by using any influence they may have to place comrades in them.

Misconduct.—22. Any member losing a situation provided through the Association by his own misconduct will not be recommended for another or be assisted in any way.

Pecuniary Assistance.—23. Any member reporting that he is in distress will be visited, if possible, to ascertain the *bona fides* of the case, for the information of the Committee.

Form of Application.—24. All applications must be made on the following form :—

1. Name in full.
2. Regimental number and rank.
3. Age (present).
4. Service with the Regiment.
5. Medals (if any).
6. Married (if so, date).
7. Age of wife (present).
8. Children (if any, giving ages).
9. Employment of wife, with wages earned.
10. Employment of children, with wages earned.
11. Rate of pension (if any).
12. Income from all sources.
13. Name of last employer. Amount of weekly wage earned when in employment, and reason for discharge, or leaving employment.
14. If assisted before, by whom, when, amount.

In every case the reason for discharge from last place of employment and character must be given. The application must be accompanied by a letter of identity and recommendation from an Officer, Magistrate, Parish Minister, or a Police Officer not below the rank of Sergeant, and also the Parchment Discharge Certificate and the Identity Certificate; the two latter will be returned. When application is made in person the above certificates, letters, etc., must be brought by the applicant.

Charitable Works.—25. That all works of a charitable nature in connection with the Regiment be dealt with by the Association in the name of the Regiment.

TWO WEEKS' TREK THROUGH LOWER EGYPT

By SQUADRON SERGEANT-MAJOR WILLIAMS, *Inniskilling*
Dragoons

Showing that a fortnight's reconnaissance work in the Delta is rendered very pleasant by the hospitality and friendliness of the inhabitants.

It was on a beautiful bright morning, with just that snap of cold in the air that adds zest to life, when as a complete service squadron we started on a fortnight's reconnaissance through the Nile Delta. We were 110 all told. Each had a good English horse under him, and we looked forward to an interesting and instructive march. We were not disappointed. A representative from the Ministry of the Interior accompanied us to smooth away any little difficulties as to arrangements generally, and of course we had to take an interpreter, none of us knowing sufficient Arabic to do without one.

He was a queer little man, as black as the ace of spades ; his marching order was not altogether orthodox, and he admitted to being more used to riding a camel than a horse. He was possessed of a row of medals that would have done credit to a Chelsea Pensioner, and also a smile that upset all one's sense of proportion ; altogether he was a good sort with a great fund of anecdote, and when we got to know him he was gladly welcomed to our mess, where he would yarn for the hour of Khartoum, Hicks Pasha's army, and other incidents of bygone days. Our first march took us along the Choubra road through the fine avenue of old trees that led to the village of that name. The Nile was on our left the whole way, and very beautiful it looked with its banks clothed with fine trees and stately palms, and the queerly-shaped boats glistening in the morning sunlight.

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A few miles past Choubra we finally left the hybrid civilisation of Cairo behind us, and passed into the pure Egyptian agricultural district. Here many curious sights rewarded the observer. We saw a native brickmaking yard, and the method of mixing the mud cannot but be revolting to those who love animals, for they have six mules in two teams of three abreast up to their chests in the thick brick mixture, struggling round and round in a circle of about ten yards diameter, while the attendant stands on a dry platform in the centre and urges them on. The strain on the poor brutes must be very great. For how many hours at a time they labour through the awful quagmire I could not find out.

A boat-building yard on the Nile with three boats being built about fifty yards away from and parallel to the water's edge, caused us to wonder how they were launched ; on inquiry I found out that they will have to wait for the next high Nile. They never hurry in this country.

As we passed a crowd of stolid natives our squadron commander greeted them with ' Nahârak Saïd ' (Your day be happy), a remark which brought forth a volume of smiles and polite answers that would not have disgraced a Gaiety chorus. It was very noticeable throughout the country that the real native responded very readily to, and greatly appreciated, all acts of courtesy.

We fed our horses and had a bite ourselves in the beautiful gardens of the Barrage, the great dam that holds back the waters of the Upper Nile. After a look round we moved on and passed through country with fine crops of mealies, cotton and vegetables. We reached Ashmoun, our first camp, about half-past four. Here a great reception awaited the squadron, and a native band which played us into camp unfortunately forgot to stop until about midnight. Two gorgeous Eastern tents were erected for the officers, and the troops were presented with live bullocks and lemonade, surely a curious mixture. The camping place was a dry mud square surrounded on three sides by native houses. and

on the fourth by a mealie field. The inhabitants had decorated the square with crude gaily-coloured flags, and had erected standards upon which were placed good lamps that lighted up our whole camp.

Crowds of natives lolled around and stared with an air of bored curiosity at our every doing ; when we moved off in the morning the same crowd was there with the same nonchalant air, and again the band emitted direful strains which followed us far into the country.

Throughout the whole trip we were freely and generously entertained by the inhabitants in ways varying from a gorgeous luncheon (which the contractor told me would cost our host at least three hundred pounds) to a cup of Turkish coffee. A stop near Kafr El Zayat was noticeable for the grave dignity and courtesy of the aged Bey who met us ; after ordering his servants to replenish our nose-bags, and when each man had had a cup of sweet tea, he went round to every one offering cigarettes from his case, which was continuously replenished by his servant, who followed with a fresh supply. An entertainment near Damanhur was remarkable for the number of native gentlemen of apparent wealth and position who attended to our wants.

We crossed the Nile by a fine bridge at Kafr El Zayat, and, as the river was low, it was possible to see that, partly covered by water, three distinct lines of rails fixed on large sleepers ran parallel to and on either side of the river bed, and about one hundred yards from the banks ; I found on inquiry that large dredging trucks were run down these rails by hand power when the river was low enough, and the silt from the bed carted away.

After a night at Kom Hamada we passed on to Hosh Issa (on the edge of the desert), where our camp was rather a gruesome one : on one flank was a native cemetery, with its medley of large tombs and numerous small mounds, all mixed up anyhow ; on the other was a large Bedouin camp, and as these people are notorious thieves we had to double our picquets. Our camp

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was invaded during the night by hundreds of pariah dogs, who kept up a constant howl, varied by an occasional yelp as a well-aimed bully-beef tin found a mark.

In the morning we moved into Damanhur, one of the great cotton centres, where we halted for a day's rest ; up to now our marches had been long, but our horses stuck it right well, and they were all as fit as fiddles.

Here we had sports of the usual sort, tent-pegging, wrestling, V.C. race, etc., to the intense delight of the thousands of natives who crowded round the ground.

Later in the afternoon we played a team of native footballers, and managed to beat them by the odd goal in three ; they somewhat lacked in science but had plenty of dash and go. Starting again, and passing through beautiful fertile country, we halted for the night in turn at Desuk, Kotur, and Tantah ; throughout this district the ingenious methods of the native for irrigating the land were well exemplified. The ox-turned water wheel is familiar to all, but a dodge not so common struck me as remarkable for its cleverness and simplicity. I can best describe it as a 'boarded in' spiral staircase enclosed in a tube of about 18 inches in diameter and about six feet long ; one end of this machine is in the water it is desired to raise (usually a small canal or drain of sorts), the other on the high land on which the water is required.

This machine revolves on its own axis, and when turned the water is scooped up at the low level and rushing up the spiral pours out into small cuttings at the other end, which carry it all over the land.

We were now drawing near our journey's end. After Tantah we stopped at Benha, and then a thirty-five-mile march brought us once more to Cairo.

Before commencing the march the horses were in big condition and on the fat side ; that they lost flesh while on the trek was impossible to prevent, for, in addition to the hard work in the heat of the day, we had to contend with bad though abundant forage, cold nights, and absence of green-meat or hay of any

description. However, they returned looking fit and well, and ready, if necessary, to start again, the number of preventable injuries being practically *nil*. Laminitis was the chief casualty we had to deal with, and although the veterinary department may scoff at the suggestion, I cannot help agreeing with my squadron commander in attributing this lameness to a very great extent to the total absence of green-meat or 'dries.'

The absence of sore heels I attribute to the fact that canvas water buckets were carried, and horses were never allowed to walk into the muddy canals or streams, so that their heels were kept clean and dry, and further to the fact that we had only two wet camps.

Our average march was 25 miles a day by the map, but, as the roads were very tortuous, the actual distance covered must have been at least 80 per cent more than was calculated.

The only dependable roads were the agricultural road and the canal banks, the others being mere tracks through the cultivation. In wet weather all these roads are like a sheet of ice, neither man nor horse being able to traverse them except at a walk, and even then with great difficulty and a certain amount of danger.

The reconnaissance part of our march was not forgotten, Officers and N.C.O.s making reports daily on such necessary subjects as roads, bridges, supplies, etc.

Hitherto our knowledge of Egypt was practically restricted to Cairo, with its ever-increasing imitation of the Paris boulevard and attendant life, but now for the first time we have been in touch with the 'fellaheen,' the result being that our opinion of Egypt and the Egyptian is far higher than it was before we made the acquaintance of those who contribute so greatly to the real wealth and prosperity of the country, and who showed such goodwill to us throughout our march.

THE PASSAGE OF RIVERS BY CAVALRY

Two instructive articles on this important subject have recently appeared in contemporary Service journals, from which we give some extracts describing various methods. (a) and (a 1) In the January number of the *Army Service Corps Quarterly* Lieut.-Colonel Edge, A.S.C., wrote on 'Instructions for slinging horses and vehicles in and out of boats; also method of passing waggon and horses over rivers, without the assistance of boats.' (b) In the February number of the *Journal of the Royal Artillery* Colonel Phipps-Hornby, V.C., R.H.A., contributed an article on 'swimming horses.'

(a) INSTRUCTIONS FOR SLINGING HORSES INTO BOATS

1. The boat should be made fast to the pier, mats or straw placed in the bottom, and all spare gear cleared from the bottom of the boat, the parting bars (bales) being arranged in order at the opposite end from which loading is to be commenced.

2. The crane, or whatever gear is used, should have sufficient men to work it easily, and one man (or two if necessary) told off to work the brake.

3. The horse, when standing under the crane, should be so placed that if he kicks on being raised, as he often does, there should be nothing in the way.

4. Five men are required to sling a horse from a pier into a boat alongside. One man should stand by his head, one on each side to adjust the sling, one man to fix the breast rope and guy rope, and one man the breeching. If men are scarce it can easily be carried out by three men as follows: After the sling has been adjusted, one man keeps it in place while his assistant fixes breast rope, breeching and guy ropes, the third man stands to the horse's head.

5. The horse is slung as follows : A mat or straw is placed under the hook of the crane and the horse led up ; if restive, he must be blindfolded with a cloth or something suitable. The canvas sling is placed under the horse's stomach and the eye to take the hook of the tackle placed through the opposite loop of the sling. The point where these ropes meet should be kept as near the horse's back as possible. It is most important that the two wooden bars of the sling should be level, otherwise the hook will not come over the centre of the horse's back. The breeching and breast ropes should be drawn close to the horse and fastened with a half hitch, the running end not being pulled through so as to allow of it easily being cast loose. The guy ropes should be fixed to the horse's head collar. A simple method is to double one long rope in half, and fasten the rope to the head collar where it is doubled. The reins should be knotted round the horse's neck, so that there is no chance of their being entangled in his fore legs, or the reins and bit may be removed and a ship's halter put round the horse's head collar.

6. When the officer in charge has satisfied himself the slings are properly secure, the hook of the crane is lowered and inserted in the eye of the rope on the sling. The order is then given to 'Stand clear,' when the men should stand well away from the horse, except the driver, who should hold on to the horse, standing by the side in order to check him if he plunges forward on feeling himself being raised from the ground. The order 'Hoist' is then given by the officer in charge, and the horse lifted off his legs. There should be no hesitation in hoisting away when the word has been given, as the horse, as soon as he is off his legs, is usually quiet.

7. The crane is then swung to the right or left, and when the animal is over the required place the order to 'Lower' is given, and he is lowered into the boat, checking the pace as he arrives on board. While the crane is being swung round one of the guy ropes should be passed on board to a man, who should steady the horse as he is lowered. On no account should the

horse arrive in the boat with his head to the side, but his head must point towards the bow or the stern of the boat ; if attention is not paid to this point he is liable to get his legs over the side of the boat.

8. Three men should be in the boat to receive the horse, one should stand to his head, another clear the hook from the sling, and the third untie the breeching and breast rope ; on no account should these latter be untied until the hook is clear.

The horse's head should then be fastened to the ring on the gunwale, and the parting bar (bale) fixed. As soon as the hook is clear of the sling, the officer in charge should give the order 'Hoist' ; the tackle is then raised and not liable to hit the horse's head. Nose-bags should be put on the horses as soon as they are secured in the boat.

9. Considerable time is saved if several canvas slings are available, as a horse can be got ready while one is being slung on board.

10. It is very important that horses should be handled firmly, and that there should be no noise or shouting. On no account should anyone give any orders to the men working the crane except the officer in charge.

11. Horses stand head to tail in the boat.

12. The few words of command that are required from the officer in charge may be summed up as follows : 'Adjust your sling,' 'Stand clear,' 'Hoist,' 'Swing right or left,' 'Lower,' 'Steady,' 'Halt,' 'Hoist.' It is important to keep the same words of command, and on no account let anyone call out instructions to the man at the crane, or an accident will probably be the result.

13. If the horses have been unharnessed (though it is not necessary to do so), the harness should be placed in the boats with the horses, and the drivers go in the same boat as their horses.

14. The mode of procedure in hoisting horses out of boats is similar to that already described and need not be repeated.

(a 1) TWO METHODS FOR PASSING HORSES OVER RIVERS

First Method.—Tie the reins round the horse's neck. Then take a rope about eight yards long and make a running loop, place it over the horse's head and draw it close round his neck. Make a single knot to prevent the loop tightening or getting slack, or a bowline knot can be used instead.

The horse is then led to the water's edge, and the rope and head rope passed to a man in the stern of the boat. It is a convenience to have a ring fixed in the stern to pass the ropes through, in order to take the strain off the man holding the horse; but if this is done, the ropes must have no knots in them, and they must on no account be tied to the boat. The horse is then encouraged to go into the water, which he usually does without much trouble, the men in the boat pulling gently on the rope secured to the opposite bank. As soon as the horse commences to swim, the man holding him may let him have plenty of rope, but should keep a slight strain on it, as the rope must not get round the horse's fore legs. A horse swims quickly, and the men hauling the boat must keep a little ahead of the horse. The horse is caught by a man on the other side, and if cold should be kept moving. Two or more horses can be taken over at one time, care being taken that they keep at the side of the boat, and not get in front or behind on account of the tow rope. A man is required to hold each horse. The horse's harness should go in the boat.

Second Method.—Knot the reins round the horse's neck so that they cannot get over his head. If the horse has not got a mane, tie a head rope round his neck. Ride the horse into the water and encourage him to swim; and as soon as he is off his legs leave his head alone and hold on by the mane or head rope, keeping him straight by lightly feeling the required rein. It must be remembered that a horse swims nearly perpendicularly, and it will not be possible to sit him in the usual position, but with a steady horse, and one who swims quietly, the rider can

remain with the horse, but must get up on his withers and lean well forward. Should the horse be at all troublesome the weight of the rider should be taken off his back and the man is practically towed over, assisting by using his legs as in swimming. If swimming a river the man should be on the down side of the stream. If a horse has a long tail the rider can hold on by it and be towed across, but this method is not recommended except with horses well trained and who swim readily.

The only danger in swimming horses is that a man must not get in front of the horse, as if he does he will be struck by the horse's forelegs.

The boat should finally take over the load, and, as a rule, about half a ton can safely be carried at one time.

Recently at Aldershot a waggon with its horses and load of one ton was put across a pond about 280 feet wide in a little over one hour, but the men were quite inexperienced, and with a little practice and by swimming the horses as described in the second method, the time could easily be reduced to half an hour. As a matter of precaution, a row boat should be in attendance, and every man should have his jack-knife ready for use.

(b) SWIMMING HORSES

During last summer the 1st Cavalry Brigade, including three batteries of Horse Artillery, were practised at Aldershot in swimming the horses across a river by a novel method devised by Brig.-General the Hon. J. Byng, who was careful to impress upon them that it was meant only for taking small bodies of Cavalry across a river when not hampered by a large amount of transport. In the latter case it would probably be better to build some sort of bridge.

To state it briefly, General Byng's scheme is to have an endless 2-inch rope (anything bigger sinks too much and has to be so strained that it breaks) running through four snatch blocks, two on each bank, three of these are made fast to holdfasts, the

fourth is fixed on to a tackle which in turn is fixed on to a hold-fast, the object of this being that should the rope stretch, it can be adjusted, without slacking the rope, to the necessary amount of tautness—it should be tightened whenever it sinks into the water at all. He claims for his system that: (1) there is absolutely no risk to human life, though occasionally through carelessness a horse may be drowned; (2) that the horses are compelled to land at the point at which it is wished to land them; and (3) that the system is very much quicker than any other.

The holdfasts on each bank should be placed about thirty yards from the bank, and the distance along the bank between them should be about forty yards. The rope should be so adjusted that it is about eighteen inches above the water; it must not be too tight, or the effort to pull it fast enough is too great.

Now we will consider that a unit has reached the piece of water which it is desired to cross and that the endless rope has been fixed up as explained above. Of course some sort of boat or raft is necessary. The horses are unsaddled, and only a head collar and a good head rope is left on each. The saddles, bridles, and men's kits of a squadron are sent over with as many men as can be spared. On arrival at the opposite bank these men are divided into three bodies: (1) those to pull on the endless rope; (2) those to receive the horses and cast off the head rope from the endless rope; (3) those to collect the horses and hold them till all are across. It is most important that the men pulling the endless rope should do so hand over hand, and as quickly as they possibly can, for they will find that the horses will always begin by swimming faster than they can pull, and this will often result in the horses being upset backwards and possibly in their being drowned. The men receiving the horses must each have a clasp-knife open and ready to cut the head rope should the knot be too securely tied.

On the starting-off side each horse must be led to the hold-fast, where it is handed over to a lasher, of whom there should be

about four specially trained men. On the manner in which these men do their work depends the rapidity and success of the passage. Each lasher, walking backwards towards the bank, ties the head rope on to the endless rope with a double clove hitch and slip knot, so that the receiver can easily, by pulling on the end of the head rope, free it from the endless rope. The distance from the horse's head to the endless rope must not be more than eighteen inches. The horses are tied on at intervals of about two horses' lengths, and care must be taken that the head rope is tight round the endless rope, as otherwise, should a horse not like to go into the water, he will get back against the next one following him, these two may then damage one another while swimming, and there may be difficulty in untying the knots on the landing side. It is most important that the endless rope should be kept moving the whole time, for it must be remembered that there are generally about twelve to fifteen horses in the water at the same time, all tied to a rope, and that they will continue swimming whether the rope is moving or not; consequently, if the rope remains stationary they will upset themselves and probably be drowned. On the landing side there should be four receivers with open clasp-knives, six men ready to take the horses as soon as they are untied off the rope, and from twenty to thirty men to pull on the endless rope. Thus should a receiver find a knot jammed, he will instantly cut the head rope before it reaches the first block on the landing side. The time taken in getting 125 horses across the Cavalry swimming-pond on two endless ropes was about eight minutes.

**TRAINING IN EQUITATION OF CAVALRY
OFFICERS OF THE AUSTRO-HUNGARIAN
ARMY**

*(Translated from the Internationale Revue über die gesamten
Armeen und Flotten)*

THE high degree of proficiency in equitation attained by both officers and men of the Austro-Hungarian Cavalry is due to the natural aptitude of the individual and to the excellent quality of the horses. As regards the officers, the young Cavalry lieutenant, who has left the Academy and been recently promoted, joins his new regiment after a two years' course of riding well-trained chargers, which, as a rule, gives him a first-rate seat and allows him, once attached to the brigade school for officers, the most favourable opportunities for perfecting his training.

There exist, in all, eighteen of these brigade schools for officers, situated, as a rule, in the garrison of the brigade command, and under the direction of a field officer assisted by a captain or lieutenant as instructor. The course commences on October 15 each year and lasts for six months. Twelve lieutenants or cadets, belonging generally to the brigade, are admitted to the course; every officer must successfully go through the course at least twice.

On first entering the school, the pupil rides his charger every day, as well as two well-trained horses and a horse of his own; for those who are a second time attached to the school a lesson in horse-training takes the place of the ride on one of the well-

trained horses. Some brigade schools of the regular army are able to obtain some hunting, but, as a rule, it is only with private packs.

At the conclusion of each course an examination, the result of which alone does not determine the final result, takes place before the brigadier-general and all the instruction staff; the opinion of the instructors on the individual capabilities of the candidate must also be taken into account. The final result is summarised in a 'certificate of efficiency,' which is communicated to the candidate's regiment, the terms of which vary in five degrees between 'perfect' and 'inadequate.' In the latter case the officer thus noted must pass twice more through the brigade school.

On return to his regiment he must ride twice daily one or two young horses under the supervision of his captain. In addition he takes part, with all the other subaltern officers, in a ride superintended by a field officer, which should take place daily between the hours of 11 A.M. and 1 P.M. It is true that this instruction is not very regularly carried out, as lieutenants have almost always to assist in the inspection of the squadron between 11 A.M. and noon, and noon is the hour for the general meal. As only a very small number of regiments can allow themselves the luxury of a private pack of hounds, almost all officers must renounce the pleasures of a drag hunt or the pursuit of a living quarry. At the same time many regiments take advantage of the fine weather regularly to organise military races and long-distance rides over broken ground and across country.

The object of every Austro-Hungarian Cavalry officer's ambition is to be attached to the Cavalry School of Application at Vienna. But the conditions of admission, as regards equestrian capacity, are exceedingly stringent, so that comparatively few are selected.

The School of Application consists of a two years' course; there are thirty pupils the first year, of whom twenty only are retained for a second year. In addition the School reserves six

places for officers of the Austrian and of the Hungarian Landwehrs.

The work is so distributed that every pupil of the first year rides a charger and his own horse ; it is thus more or less a repetition of the brigade school course with picked pupils and better instructors. Every year, during the autumn, the first course goes to Holics, a property placed by the Emperor at the disposal of the School. There hunters are trained, as well as forty stallions and twelve mares from the Hungarian Government stud farms, also chargers for hunting. Paper-chases, drag hunts, and three stag hunts teach the young officer how to ride across difficult country.

Luckier than the pupils of the first year at the Cavalry School of Application are those of the second year during their stay at Holics ; for as long as the weather permits they are able at the daily paper-chases and the three days a week stag hunting to ride the horses trained by their junior comrades. In winter they ride their own horses, the troop horses, and the seventy-two School horses and the twelve Government mares which have already been ridden hunting, and which are made handier by work in the riding school, at the same time correcting faults of style. This work in the riding school during the second year is particularly tiring for the officers, whose riding capacity is very severely tried, no half-measures being permitted.

In addition to the Cavalry School of Application there is also at Vienna the Royal Spanish School of Equitation, where certain chosen officers, selected for their remarkable riding efficiency, are admitted to practise the *haute école* according to the old style. The officers in question, selected both from the whole of the regular army and from the Landwehr, are detached to this School for one year. Although this instruction is of no immediate utility, either from the point of view of the service or of sport, it nevertheless gives them a thorough knowledge of the horse and of his capabilities in a degree which no other method of equitation can impart.

In the Austro-Hungarian Landwehr mounted troops the brigade schools are replaced by Cavalry courses at Wels and Olmütz. The courses last from October 10 to January 10 each year, and are followed by twenty-four officers who, like their comrades of the brigade schools, ride their troop horses, their own horses, and the old and young horses of the squadron, which the Government attaches to the School. The latter has at its head a field officer; a captain (detached squadron commander) and two riding masters impart practical instruction. The rest of the training of the mounted officers of the Landwehr is exactly similar to that in force for the regular army.

The Royal Hungarian Cavalry (*Honved*) possesses four brigade schools, generally organised in the same manner as those of the army, with this difference, viz. that each has a pack of hounds kept up by the Government, and that during the autumn the equitation schools, the Hussar regiment in the same garrison, as well as candidates for field rank in the brigade enjoy the pleasures and advantages of the drag hunts.

Finally, there also exists at Buda Pesth the *Köz parti Covas iskola*, or Central Cavalry School, an establishment which, in addition to a school for farriery, for telegraphy, and for optional courses, includes a Cavalry School of Application. There the lieutenant must also undergo theoretic instruction before promotion to the rank of captain in order to make himself thoroughly efficient in his future duties. The pupil officers must ride not only their own horses and troop horses, but also the horses belonging to the School and the stallions sent for the hunting season by the Hungarian National Stud farms. The School has a pack of its own for drag hunts. In autumn, stag and fox hunting are followed with the Buda Pesth hounds; in the spring, tactical exercises and manœuvres, under the direction of the Commandant, help to perfect the knowledge and efficiency of the sixteen officers attached to the School.

THE DISMOUNTED ACTION OF CAVALRY

By GENERAL VON PELET-NARBONNE

(Translated from the 'Militär-Wochenblatt')

It is a matter of congratulation that of late the importance of this method of carrying on the fight is more and more clearly recognised. After the last great campaign the need for thus practising Cavalry was acknowledged by all mounted men who had open minds ; but there was a by no means limited number of officers who found a difficulty in breaking away from established custom and who loudly opposed the idea, saying that the 'Cavalry Spirit' would thereby be ruined ; as though the 'Cavalry Spirit' was not already in danger of being utterly ruined when, as not seldom in that campaign, whole regiments and brigades were checked on the march by a mere handful of skirmishers without having the power to brush them aside.

The keenest supporter of training of this kind was General Karl von Schmidt—the man who was always to be found in the forefront, whether before the enemy or in time of peace. In circulars and in manuscripts, dating from the years 1872 to 1875, he constantly recurs to the need for practising dismounted action, and gives the following—which to-day seems typical of what is required—for the aim and object of such training: 'The Cavalry,' he says, 'must skirmish on foot in small and large bodies, must learn to take advantage of ground and overcome its obstacles and obstructions, to husband ammunition so as at the right time to use it in rapid fire, preserve the strictest fire discipline, gain ground by rushes, fight their way by fire to the foe, gain the

mastery by superior skill, by tenacity, and by using supports at the right moment, then by a dashing onslaught and the impelling force of the men following in rear capture the position and learn how to hold on to it at all costs.'

One can see that Schmidt even then insisted on the offensive spirit in dismounted work ; in the regiment which he himself trained—the 16th Hussars—he had educated their offensive spirit up to such a pitch that they were engaged in six actions on foot as well as in eight actions as Cavalry mounted. One could hardly have expected otherwise of Schmidt, who was always for the attack, than that he should have laid down the following in the 'General Rules' which he was found to have left behind him: 'The quick decision for the rapid advance.—The forward movement is everything.—Everything depends on pushing home the attack, the encouragement of one's own followers and loss of heart by the enemy, who then usually retreats.—Nothing to be done by excess of caution, no half measures, but everything thoroughly and with energy.—Under all circumstances the undertaking to be carried through and the goal attained which has been set before us.—There must be no hesitation, no weighing of all eventualities which may be met, for by such action arrival at the real goal is hindered.—There must be a firm and stern determination to carry through that which has been set before us.—A bold, energetic attack, a quick resolve to assault, and then come to grips without a moment's hesitation.—Any inclination to retire, a movement to the rear, to break off the action, is to me an abomination.'

There was then no general idea of that which Schmidt also favoured, namely, that a dismounted fight might be entered upon and carried through by large bodies of Cavalry, and that for this purpose even whole regiments might act as Infantry. When in the fullness of his work an untimely death carried off this Cavalry leader, all interest in dismounted work began to be lost in the Army. It is only in the last few years that interest in the matter has been again awakened, and in this respect military

literature has done good service. The growing recognition of the importance of dismounted action by Cavalry may be seen from the fact that at manœuvres Cavalry thus act in large bodies, and that it has begun to be accepted as a part of the inspection by the highest military authorities. At the same time military writers have laid down practical rules how this form of training can best be carried out. There are two small pamphlets which have recently appeared, and which deserve our special attention, and which have induced me to offer these remarks. One is a small work which has just appeared entitled 'The Training of the Cavalry Recruit in the Different Forms of Attack,' by Major von Byern, and 'The Training of Cavalry in the Dismounted Fight,' by Major George von Ruffer, squadron commander in the 2nd Hussars of the Guard, wherein the practical ideas of the former publication—written by an Infantry officer—are turned to good account. Each pamphlet supplements the other very happily. That of Major von Byern does all that it claims to do, and does it excellently, while the more erudite work of Major von Ruffer deserves an especially thorough appreciation.

The book is written in strict conformity with the Musketry Regulations, the Drill Book, and the *Feld-dienst* Manual; the figures of the Regulations are all there, and whenever they are quoted they will be found noted in the margin. These must be read in conjunction with the text if the study of this little book is to yield its fullest value. The author first states the object which all these books of Regulations have in view, and then proceeds to discuss the training of the recruit. He rightly describes the lying position as by far the most important of all the firing positions, and there can be no doubt that hitherto the standing position has everywhere been looked upon as the most important. The importance of target practice at extreme ranges is insisted upon, naturally not practice such as can be carried out in the vicinity of barracks, but at targets not easily discoverable, and to be carried out at all seasons—even in winter. The author

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also explains how the instruction may be made not only useful, but how—which is of the first importance—it can be made interesting to the men.

It is very evident that exercises in judging distance must precede the above. The greater portion of our *personnel*—by reason of their previous occupations—have never had occasion to practise the sight at extreme distances, to observe things which are moving on the far horizon. One notices this when reconnoitring, for which also exercises in observing at extreme distances are of the first importance; and considering that nearly all fire actions are carried through in the lying-down position, judging distance when lying is naturally of the greatest moment. Then follow exercises in sections and groups without horses, and battle training dismounted, but with horses. In this latter portion of the pamphlet there will be found a number of most practical suggestions which deserve the fullest consideration. Especially worth notice are the remarks about dismounting in different formations, and the keeping under cover of the led horses, which in peace is so seldom done under service conditions.

The *noiseless* preparation for dismounted action should be practised, as also exercises in loading while in the firing position lying down; there are also many weighty suggestions for the increase of the rather meagre ammunition allowance.

Whenever I have insisted upon the importance of the dismounted action of Cavalry, and although this pamphlet shows that the use of the rifle is fully recognised, still on every side the complaint is heard that the Cavalry have no time thoroughly to practise themselves in this. There can be no question that the number of services demanded of Cavalry has enormously increased, while there are still only twenty-four hours in the day. The proper disposal of the working hours has, therefore, become a matter of great importance, and a certain talent for organisation is necessary in order that the available time may be properly distributed between what is of real importance and that which is

but of secondary value. On this subject I have long ago spoken, and will now only briefly put forward the following: One hour's grooming daily for the horses is quite enough, much time and labour is easily thus wasted; a grooming and rubbing down in the morning should suffice. It would best answer the purpose if a thorough grooming took place after the ride, but this cannot be carried out during the winter. In that drill season it might well be laid down that the hour for 'stables' should be postponed until the evening, when the whole work of the day is finished. A proposal may be here repeated which has elsewhere been put forward for consideration, that the chief meal of the men might be taken in the evening when the day's work is over, as is the custom with their officers. But the men must, of course, have a meal at midday.

Further, care should always be taken that in the carrying out of any one exercise other purposes should at the same time be served. For instance, a party marches out from barracks for some particular exercise; the march out and back might very well be made use of for general instruction, for practice in reconnaissance, for judging distance, for carrying out all kinds of practices. The complaint would then lose its justification that squadrons cannot in winter time go far afield, because so little time remains for all the other work which must be got through. The same procedure might be adopted in respect to other practices, so that full employment might be found for all the men of a squadron. From all the above it may be recognised that if the matter is really taken seriously in hand, there should be many additional hours which may be saved, and which should be available for training Cavalry in dismounted work.

The above-quoted book by Major von Ruffer may, however, be confidently recommended to all those who are concerned in the attempt to carry out such work.

PROBLEM No. 6

THE time is 8 A.M., September 4, and the British Army in the South of England is busy at manœuvres.

S.S.M. Jones, with a patrol from the Red Cavalry Division, one corporal and five privates, is out on a strategic mission fifty miles from his own army in friendly country.

The patrol has covered fifty miles since noon of previous day, and has halted at a farm close to the small village of DEEFFORD, on the banks of a sluggish stream, and equipped with a post office, public house, and grocer's shop.

Leaving the corporal to see to his horses, the sergeant-major has entered the farm, and with his map spread on the parlour table is questioning the farmer about the country and the Blue army he is looking for, when Corporal Smith walks in. 'Major,' he says, 'No. 24 won't feed, he's brushed badly and seems to be fairly done up, and Robinson's horse has rubbed his withers on the near side.'

'I knew we shouldn't have taken that 24,' replied the sergeant-major; 'he's a good little horse, but he's only a five-year-old, and young horses can't live with old horses on the road. I'll come.'

Going to the stable S.M. Jones finds No. 24 thoroughly exhausted, and the wither gall on Robinson's horse is serious, the skin off as big as a half-crown.

He sees at once that he'll have to leave both horses behind, and gives Corporal Smith directions for their treatment.

On turning out two hours later, Smith's own horse, No. 42, is found to be dead lame, so foot-sore he can hardly put one foot before the other.

Giving Smith directions for treating the foot-sore horse, the sergeant-major rides along with his remaining three men.

Corporal Smith carries out the sergeant-major's directions, but to add to his troubles Robinson's horse, No. 29, is taken sick with colic in the afternoon.

Problem.—What directions did Sergeant-Major Jones give for the treatment of Nos. 24, 29, and 42, and what action did Corporal Smith take to treat No. 29 for colic?

E. W. LARNDER, *Major, A.V.C.*

Problem No. VI.

Open to Non-commissioned Officers and men of the Mounted Branches of the Regular or Auxiliary Forces at home and abroad.

All Solutions (which should be as short as possible) must be attached to this page with name, rank and address of sender, must be countersigned by an officer, and must reach

THE EDITOR,

'Cavalry Journal,'

Royal United Service Institution,

Whitehall,

London, S.W.,

not later than August 15, 1908.

A Prize of a 'Cavalry' Watch will be given to each of the first three whose solutions are considered the best.

The Editor's decision will be final.

From

Name

Rank *Regiment*

Address

Countersigned by

PROBLEM No. 5

RESULT

THE increase in the number of competitors was most satisfactory, and many of the solutions submitted were very good.

The chief points aimed at in the problem were :—An immediate charge by the squadron on the two hostile troops first across the river, with rapid movement of the guns to co-operate and shell the other hostile troops advancing to the river. To blow up that bridge which can be easiest and quickest destroyed, and to defend the one which can be best defended ; as the enemy may quickly bring up guns which may fully occupy the attention of the two Horse Artillery guns, it is better not to rely on the latter to destroy one of the bridges.

Speed is most important, as the enemy must risk much to force their passage.

We have decided to give four prizes instead of three as originally intended, as we are unable to differentiate between the merits of the four officers whose solutions are considered the best, and a prize of a wrist watch has been forwarded to each of the following :

- * Captain Davies-Cooke, 10th Hussars.
- Captain Gibbs, 7th Hussars.
- Bt. Major McNeill, Seaforth Highlanders, M.I.
- Captain Vander Byl, 16th Lancers.

Good solutions were sent in by many other officers, amongst whom we may mention :

- Captain St. John, Oxfordshire Hussars.
- Captain Hill, R.F.A.
- Captain Kearsey, 10th Hussars.
- Second-Lieut. Sandys, E.R. Yorkshire Yeomanry.
- Captain Jenkins, 26th Light Cavalry.
- Lieut. McFarlane, South African Constabulary.
- Captain Martin, Leicestershire Yeomanry.
- Lieut. Humphrey, Border Light Horse.
- Lieut. Paterson, 19th Lancers.
- Lieut. Meade, 33rd Light Cavalry.
- &c., &c.

* We regret to state that this officer has since died.

We give the solution sent in by Bt. Major Angus McNeill, which should be read with reference to the Sketch Map facing p. 490, CAVALRY JOURNAL, No. 8, October 1907.

Appreciation.—On arriving at point 'B' Captain X. rapidly appreciates the situation as follows:

The only visible cover is at North Bridge. If this can be seized the river is commanded up and down, and South Bridge (a suspension one) can be destroyed by the squadron Pioneers, covered by fire from the Inn and the two guns on the ridge (B), leaving then but *one* bridge to hold.

Therefore the Inn at *North Bridge* is the key of the situation, and the guns should be able to gallop into position at 'B' before the two troops of enemy's Cavalry can occupy the Inn, as the latter are advancing at a slow trot, and up to the present have no reason to quicken the pace.

Orders.—Orders are accordingly signalled back for the two guns, R.H.A. (with escort), to proceed at a gallop to point 'B' (where the Section Commander has already selected a position), and to open fire on the enemy's Cavalry at North Bridge.

The Cavalry squadron to move with all speed by point 'C,' and drive back the enemy's Cavalry across South Bridge.

[N.B.—The two troops hostile Cavalry could, at the most, by this time be half way up the ridge.]

One troop, with squadron Pioneers, to be left to demolish the bridge (South Bridge), the remainder of the squadron pressing on to occupy the Inn at North Bridge.

Situation No. 2.—This having been accomplished the situation is as follows:

One squadron established in and about the Inn at North Bridge, covered by two guns, R.H.A., from ridge at 'B' [range to bridge about 1,700 yards].

South Bridge demolished.

Reinforcements expected within the hour.

Appreciation No. 2.—Captain X. now feels in a position to dispute the passage of the river for some hours. The Inn and its surroundings afford the only cover for many hundreds of yards around.

The river Ruse is wide and unfordable.

South Bridge is destroyed.

The country east of the river is flat, whereas to the west is a commanding ridge, on which his two guns are in position.

Support should soon arrive, as Paulborough is only ten miles distant, and the force hastily concentrated there is presumably composed largely of mounted troops, capable of coming into action on the ridge within one and a-half hours at most.

RECENT PUBLICATIONS

'RECONNAISSANCE IN THE RUSSO-JAPANESE WAR'

By 'Asiaticus.' Published by Hugh Rees, Ltd. Price 4s. net.

Lieutenant J. Montgomery of the 3rd Hussars has performed a useful work in translating this book from the German. The opening chapter discusses the characteristics of the two Cavalries, laying special stress on the source and the training of officers and men, while the next one gives some account of the system of espionage which played such an important part in the war, and which was so thoroughly well organised by the Japanese, and apparently so little understood by the Russians.

The following chapters give some account of the work performed by various Brigades, in reconnaissance, raids, &c., illustrated by sketch plans. In the two concluding chapters the author points out, on the basis of the occurrences previously described, how far the peace training of both Cavalries stood the test of war, and what new methods and measures have established a claim to future consideration and may be applicable to European theatres of war:—

'In strategical reconnaissance the independent Cavalry Corps should be provided not only with artillery but with machine-guns as well, in order to make them as independent as possible of the infantry.

'If reconnaissance may have become more difficult on account of the hostile rifle fire, still a patrol leader endowed with the requisite military knowledge and intelligence can, with determination and skill, perform great deeds. The result of all reconnaissance will thus always be in proportion to the capability of the leader.

'The personality of the leader of large bodies of Cavalry always exercised and still has the greatest influence on the efficiency of bodies of Cavalry, whatever their size, and comes ever more and more into the foreground.'

'THE TACTICS OF HOME DEFENCE'

By Colonel C. E. Callwell, C.B. Published by Hugh Rees, Ltd. Price 3s. 6d.

With the inception of the Territorial Army this book comes in most opportunely for all who take an intelligent interest in national security and desire to study the peculiar tactics called for by the conditions arising in home defence. It is obvious that all cannot train on Salisbury Plain, or other open down land, and this book deals with the influence likely to be exerted by the unique topography of the British Isles upon the handling and movements of troops, and

puts forward suggestions regarding the methods of turning the features of the ground to account from the point of view of our side.

There is an instructive chapter on the rôle of mounted troops in this country, pointing out what an important part they have in home defence, in spite of the unsuitability of the terrain in many parts, the advantages enjoyed by our mounted troops as regards scouting and observation, the increased defensive power in an enclosed country, etc., etc. Altogether it is a valuable text-book for all branches of the Territorial Army.

‘PRÉCIS OF GREAT CAMPAIGNS, 1796-1815’

By J. H. Anderson, F.R.Hist.Soc. Published by Hugh Rees, Ltd. Price 10s. 6d. net.

This Précis is based mainly on French accounts. It does not include naval operations. It is replete with clear maps and plans, and is divided into convenient chapters for various phases, so that the student of any particular campaign for an examination can select the period he requires; moreover, there is an excellent index. The first period comprises the campaigns of 1796 and 1797—then follow the campaigns of 1798 to 1801, including the French expedition to Egypt and Syria. The author next takes the third coalition against France, the campaign of 1805, followed by the campaign of Jena in 1806, and Eylau in 1807. Then comes the Central Europe Campaign of 1809, and the campaign in Prussia 1812, etc., etc. The Peninsular war is dealt with partly in detail, partly in outline. The two concluding chapters deal with 1815 and the war with the United States 1812-1815.

‘DIE AUSBILDUNG DES KAVALLERISTEN IM FUSSGEFECHT’

By Major von Ruffer, 2nd Hussars. Berlin: Mittler und Sohn, 1908.

This is one of two books on the dismounted action of Cavalry which was strongly recommended to notice by General von Pelet-Narbonne in a recent article in the *Militär-Wochenblatt*, and is in a measure a protest against the opinions openly expressed by those Continental Cavalrymen who assert that, with the short period of army service, there is no time to make of their men expert horse soldiers and good riflemen. Major von Ruffer claims that time may be found for a very great deal of instruction, provided advantage is taken of every possible opportunity, and provided also that, while accuracy and thoroughness are insisted upon, there is no attempt at anything like machine-like uniformity. The author lays the very greatest stress upon careful instruction in aiming and pressing the trigger, and the constant use in this connection of an aim-corrector; they appear also to have in the German army a large scale wooden dummy back- and fore-sight, wherewith the recruit is practically taught the connection between the two and the point aimed at. Major von Ruffer lays stress also upon judging distance, and suggests that much of this should be practised in a lying-down position. At the end of the book are some useful little fire problems, and also a number of examples of the proper use of fire-words of command—very much after the manner of those introduced some fifteen years ago in India by the present Assistant Adjutant-General for Musketry,

and which gave at the time a great impulse to the systematic study of musketry under service conditions. Major von Ruffer has produced a little book which should be a considerable help to the officers of the German Cavalry, but whether he has quite solved the question of finding the necessary time to teach the whole duty of the rifleman to the German Cavalry soldier is a matter which the British reviewer is hardly in a position to decide.

‘ORGANISATION UND AUSBILDUNG DER KAVALLERIE FÜR DEN
MODERNEN KRIEG’

By Lieut.-General von Bernhardi. Berlin : Mittler und Sohn, 1907.

This is one of those valuable instructional lectures which from time to time are given before the Military Society in Berlin, and the name of the lecturer is sufficient warranty for the excellence of the contents of the pamphlet now published. The author commences with a short sketch of the development of Cavalry since 1866, and points out that although in the war of 1870 the German Cavalry was far from being adequately organised and trained for the new efforts and work then demanded of it, this arm was still able to ensure the security of the movements of the armies, while it was even then plainly noticeable in what a high degree of safety the preparation of dispositions could take place when the covering Cavalry masses were flung well to the front. In those days the decisive influence of the mounted arm was found to have lost none of its power through the improvements in fire-arms, and yet General von Bernhardi warns his countrymen, and especially his own branch of the service, from attaching undue weight to results achieved against a Cavalry which was unable to uphold the screen which the German horsemen strove to tear aside. The author claims that while the difficulties which attend the work of the Cavalry in modern wars are greater than of old, the German Cavalry at least is far better equipped to overcome them; the organisation is better; the weapons are greatly improved and the men are far better trained in their use; the Cavalry rides better; the remounts are of an improved stamp; while not only do all ranks know their work better than of old, but they possess a higher understanding how to get the most out of their horses. Space does not permit of a detailed criticism of all that this pamphlet contains within something less than seventy pages, but there are few matters of interest and instruction for the mounted arm which are not touched upon by one who knows his business *à fond*. Of special value are his remarks on the modern demands on the Cavalry, its *strategische Gruppierung*, the proper strength of the Cavalry divisions, their due organisation for peace and war; there is also much matter for consideration in what General von Bernhardi has to say about Cavalry transport and supply columns, the Cavalry fight, and the fire fight. At the end of the pamphlet, in the form of short appendices, are examples from campaigns illustrating the contentions which the author would drive home, and if the constant reference thus necessitated may seem at first somewhat troublesome, this is counterbalanced by the smoothness with which the whole vast subject is dealt with in the text. The pamphlet is happily printed in the Roman character—an immense boon to British readers, but it is to be hoped that it may not be long before so small a work of such great value to Cavalry students is done into English.

'A MILITARY PRIMER'

Prepared for the Cadets of the Fourth Class United States Military Academy by Captain Marshall, 15th Cavalry, and Captain Simonds, 22nd Infantry.

Includes an outline of the duties and responsibilities of the military profession, and an elementary discussion of the principles and practice of the Service of security and information. It is essentially a text-book for the beginner, designed to teach the cadets the reason for the discipline to which they are subjected and the more independent duties of subaltern officers in time of war. There are plenty of diagrams and maps accompanying the chapters on map reading and orientation, the duties of patrols, the advance guard, the rear guard, and outposts. The concluding chapter deals with 'The Independent Cavalry,' and gives an example with map of an Independent Cavalry Division of three brigades of three regiments each, covering two Army Corps of three divisions each, from which we gather that the idea is for the Cavalry Division to act as sort of glorified outposts to the main force, its duty being to explore the country in front and on the flanks of the main army in a more complete way than can be done by the advance guards. This necessarily splits it up into various detached bodies, and it therefore ceases to be able to perform what we conceive to be the duties of the Independent Cavalry.

'EQUITATION'

Par Capitaine de Saint-Phalle. M. Legoupy, Paris. 2 vols.

The first volume of Captain de Saint-Phalle's new work deals with elementary horsemanship, and is intended for beginners and for the direction of those teaching beginners; the second volume is for advanced students, and contains seventeen full-page plates illustrating the principles enunciated. The work is practical, and the name of its distinguished author is sufficient warrant for the soundness of its advice.

'THE KAVALLERISTISCHE MONATSFESTE, DECEMBER 1907,
JANUARY AND FEBRUARY 1908'

The December number of last year contains two papers of general interest—one on 'Schlachten Kavallerie und Werittene Infanterie,' by Freiherr von Treuberg, the other by an Artillery officer on 'The Employment of Artillery with large Masses of Cavalry.' The former contains some very original ideas, the latter is written in the hope of giving rise to a discussion upon several points which require clearing up, and whereon the views of the supreme Cavalry commander and the subordinate O.C. R.H.A. may not be in accord. The January number of this year opens with a very well-written account of the pursuit by General von Schmidt after the battle of Le Mans. Lieut. Belfanti, of the 12th Uhlans, writes on the Turkish Cavalry, of which he appears to entertain, from every point of view, a far more favourable opinion than that expressed in a previous article by Rittmeister Spaits. An Infantry officer contributes a paper on the employment of cyclists with Cavalry in the French and German armies. In a recent number of the CAVALRY JOURNAL there was some mention by the late Colonel Nunn of the value of sugar as a 'pick-me-up' for horses; in the January *Kavalleristische Monatshefte*

there is a very short paper on 'Zuckerfütterung,' wherein it is stated that in the hilly country about Gastein it is the custom of the country people to put sugar in the water given to the horses to counteract the effect of chill from drinking the cold water of the mountain streams. In the February number is the prize essay on 'The Independent Employment of Cavalry Bodies Against the Flanks and Rear of the Hostile Army.' The judges find that some of the many competitors fail in drawing the right lessons from the history of the past because they do not make sufficient allowance for the different conditions prevailing then and now. All the competitors insist on thorough training in dismounted action for the Cavalry which hopes really to achieve all that is expected of it. Further on in this number is a strong protest against the proposal already made this year in the German Reichstag for bringing the Cavalry and Artillery also within the two years' period of army service. At the end of each number of the *Kavalleristische Monatshefte* is a short account of what is happening in the Cavalry of other nations, and the journal, too, seems to make something of a speciality of reviews of books dealing with Cavalry questions.

'JOURNAL OF THE UNITED STATES CAVALRY ASSOCIATION'

In the January number Captain John W. Furlong, 6th Cavalry, writes on a subject which appears to be attracting considerable attention in the United States, and it is one of such vital importance to ourselves that we might with advantage devote a little more careful study to it on this side of the water. The title is, 'Wanted: a System for Furnishing Remounts for the Cavalry.' The points with which he deals are: Desirability of proper organisation in peace and war, the type of horse required, the method of purchase and issue, and the contract method of purchase. 'The British Remount System' is the subject of an article by Coleman Norkolds, Veterinarian 1st Cavalry, and his conclusion is that 'the two most important things for an ideal remount system, which England lacks, are a sufficient home supply of animals and plenty of room to work in. She has to depend, to a large extent, for her horse supply on her Colonies, and even on foreign countries, as was fully demonstrated during the late South African War.'

THE RUSSIAN CAVALRY JOURNAL

Under the title *Wjästnik russkoj konnizy* (the 'Russian Cavalry Messenger') a journal devoted especially to Cavalry subjects has been established in Russia since the late war, by order of the Russian Inspector-General of Cavalry. It is published by the Russian Cavalry School for Officers in St. Petersburg. Its aims are not only the dissemination of knowledge of Cavalry subjects throughout the Russian Cavalry, but also to embrace the wider aspect of general military training, especially the intelligent comprehension of the co-operation of the various arms in war. The editor is at present Captain Prince D. Bagration, in collaboration with prominent officers of the regular Cavalry, the Cossacks, and the Horse Artillery, as well as representatives of the other arms, and several well-known writers. It appears fortnightly, and contains forty to fifty pages well illustrated, and frequent supplements with very interesting essays, sketches, and photographs from Russian military life. The ample contents of each number consist of an official and

unofficial part, the latter consisting mostly of very interesting original essays, and surveys of the Cavalry of the various Great Powers, a section on veterinary service and the care of horses, and various notices, criticisms, etc., of books, periodicals, and inventions. The official part contains contemporary personal changes in the whole Russian Cavalry, as well as all the important decrees, orders, regulations, etc., partly in the text, partly in the form of extracts. Many of the articles which have so far appeared contain an abundance of data and allusions as to the present condition of the Russian Cavalry, etc., criticising in a business-like fashion some of the existing institutions. For instance, 'Reflections on the Fight at Mukden,' 'The System of the Instruction of Officers in Riding,' 'Examples for the Improvement of Cavalry in Information Service,' 'The Want of Greater Leaders in the Army,' 'The Present State and Importance of the Cossack Force,' 'Sport in the Russian Cavalry for the Last Forty Years,' 'The Importance of Cavalry in Modern Great Battles,' 'Musketry Instruction in the Cavalry,' 'The Russian Cavalry in the Last War,' etc., etc.

'BLACKWOOD'S MAGAZINE'

The January number of this magazine commences with an article on 'The French Army on Campaign: an Account of Their Operations in Morocco,' by E. Ashmead Bartlett. This is the first opportunity that there has been for some time of following a French Army on active service, and the author brings out many interesting points.

'The operations were an object-lesson in the employment of Artillery against Cavalry, and I think the result must have come as a surprise to most soldiers and to all Artillerists, always a confident and self-satisfied corps. According to most of the preconceived theories of modern warfare, it is impossible for bodies of Cavalry to manœuvre in the open, exposed to full view, anywhere within effective range of modern Artillery. The gunner with his superb quick-firer will tell you that, given fair conditions, nothing can live within his power of destruction. Yet how different is the result in actual practice! The French Artillery has enjoyed a great reputation ever since the little Corsican honoured that branch of the service with his magic personality: the French have possessed a first-class quick-firer with fixed ammunition for eight years before any other Power adopted it, and their gunners are very efficient. Yet with every advantage of training and modern science, the despised Arab horsemen were able to attack again and again in large bodies within decisive ranges, suffering comparatively little loss, when, according to the gunners' calculations, they should have been utterly destroyed. The French had two batteries, the 12th and the 18th, at Casa Blanca, in addition to mountain-guns, and they were in action almost every day for a month, and thus had every opportunity of becoming accustomed to the light and range. When the fights were near the town the field-guns were assisted by those of the *Gloire*, yet this tremendous shell-fire inflicted comparatively small loss, and never once deterred the Arabs from attacking, if one can judge by the number of horses left dead on the ground. A rapidly moving target is so difficult to pick up, and the range has to be so constantly changed, that, except for an occasional lucky shell which gets home, Cavalry can manœuvre almost scathless—at least, this was the case in Morocco. The French shrapnel carries three hundred bullets, and

should burst ten mètres above the ground, when the area of destruction is twenty yards wide and two hundred and fifty deep. The Moors were not slow to discover this, and adopted the plan of advancing in small bodies some twenty or thirty yards apart, so as to localise the effect of the shells. At first the gunners, new to the conditions, and shooting for the first time under fire, were very much at fault, especially in judging distance. They use no range-finders, and all distances are judged by the officers, many of whom could not have been very highly trained in this important art. It should be said in justice that the French are accustomed to shoot in massed batteries, where the range is quickly picked up by one or two trial shots.

‘From what I saw in Morocco I feel certain that it will be practical for Cavalry to charge Artillery if they ever catch a battery in the open unprotected by Infantry. Cavalry charging Artillery in position, in a very open formation, and gradually closing in as they near their objective, will suffer very small loss, if one can draw a moral from the experience of the Arab horse. The French take this view, and have armed their Artillery with the carbine, so that at the last minute they may fight as Infantry if they are suddenly overwhelmed by a charge of Cavalry.’

‘THE JOURNAL OF THE ROYAL ARTILLERY’

This journal usually has several articles which might with advantage be read by Cavalry officers. In the January number Major Birch gives an account of some experiments in the teaching of equitation which have recently been carried out at the riding establishment; and Captain d’Apice has an instructive article on ‘Communication in the Division.’ Any suggestions which have for their object the organisation of a system which would put a stop to orderlies and signallers being called for haphazard from any troops which may happen to be handy are certainly welcome to regimental officers.

‘THE HOUSEHOLD BRIGADE MAGAZINE’

This magazine, which commenced its career as a quarterly last April, keeps up to a high standard. It is well got up, well written, and well illustrated, and is full of intelligence likely to interest past and present members of the Household Brigade, and is well worthy of support.

In the January number is published a letter from Colonel the Earl of Harewood, who for many years commanded the Yorkshire Hussars, and his remarks on horse supply are given below :—

‘In looking at the scheme from the military point of view, I should not be doing what you ask me to do if I did not point out in this letter what in my opinion may be a fatal obstacle to the mobilisation of the Territorial Army. In a recent speech Lord Carrington, who should certainly have opportunities of knowing his subject, stated (I quote from memory) that on the mobilisation of the first line, or expeditionary force, some 54,000 horses would be required in excess of those at present on the strength of the Army.

‘Where are these horses to come from? Obviously from those trained, or partially trained, by the Territorial Army. But what is the Territorial Army to

do? A division without horses for its Artillery, without transport, is immobile and useless. In these days of motor traction, the number of horses employed in England is sensibly and steadily decreasing. Even that most useful class of horse, the omnibus horse, will soon cease to exist. Where, then, are the horses to come from? No doubt the work of a committee of each of the County Associations will comprise the registration of horses available for military purposes in the district. But you can only register what already exists, and it is more than doubtful if any registration, however careful and exhaustive, would show the required number of horses to stand the strain of sudden mobilisation.

'This is a defect in the new scheme with which it is impossible for the County Associations to cope. A possible way out of the difficulty might be, that every suitable tenant-farmer or small holder of land should be supplied by Government with a horse at, say, three or four years old. He should be allowed to use this horse for his own purposes, subject to the inspection of a Government official (say, once a year) to see that it is kept in proper condition. It should be at the disposal of the Government for military purposes for six years, at the end of which time it would become the absolute property of the farmer. If a mare, it should not be allowed to leave the country, except with the consent of the Government, who should have the option of purchase of its produce at a fixed price.'

'PANORAMA DRAWING'

By Captain P. E. Lewis, R.F.A. Published by Hugh Rees, Ltd. Price 1s. 6d. net.

This is a short pamphlet describing a simple and practical method by which those who are not naturally proficient in landscape drawing may be able to produce a useful and accurate panorama, either from nature or from the map. There are three plates, which, studied in conjunction with the letterpress, make the explanations easy to grasp. Altogether a very useful text-book on a very important subject for the mounted branches.

'WEAPONS'

By B. E. Sargeant, Assistant Curator Royal United Service Museum. Published by Hugh Rees, Ltd. Price 2s. 6d. net.

This brief discourse on the principal hand weapons other than fire-arms is very interesting. The book possesses eleven plates with numerous illustrations, and each weapon contained in any particular plate has its description and history recorded on the opposite page. The book is divided into three chapters, dealing respectively with weapons for stunning, cutting, and thrusting or stabbing, and a fourth chapter is added for the inclusion of certain miscellaneous arms which are not capable of classification under any of the headings of the first three chapters.

The author concludes his preface by remarking: 'Specimens of nearly all the weapons mentioned in this work are to be found in the Royal United Service Museum at Whitehall, and I am indebted to this most excellent collection for the majority of my illustrations. I sincerely hope that all those who glance through the chapters of this book will be persuaded by them to visit the Museum at Whitehall, and I trust that my small efforts may be the means of inculcating

increased interest in a collection which is truly deserving of the attention of every member of the community.'

'HINTS ON HORSES, WITH SHORT NOTES ON CAMELS AND PACK ANIMALS'

Collected by Major H. P. Young, late 4th Bombay Cavalry. Published by Gale & Polden, Ltd. Price 1s. net.

A fourth and revised edition of this little publication is now out. It provides a collection of notes which are both interesting and instructive, and being put together without unnecessary padding it should commend itself to all who require useful hints without having to wade through a quantity of written matter. There are parts which are not quite abreast of the times, especially in the portion dealing with diseases, and we would also point out that horses are not as a rule now placed in slings when on board ship. Still it is, on the whole, quite a useful little book.

'HANDBOOK OF THE MAXIM GUN'

Published by Gale & Polden. Price 6d. net.

This is a revised edition, containing two new chapters, one on 'Failures,' and one on the 'New Tripod Drill.' It should prove a most useful companion to anyone who has charge of a maxim gun, and as most of it is compiled in the form of questions and answers the information is easily acquired.

'GUIDE TO PROMOTION FOR OFFICERS IN SUBJECT A'

By Captain R. F. Legge, the Prince of Wales' Leinster Regiment. Published by Gale & Polden. Price 4s. net.

Published in January 1908, the author has put together in a handy form practically all the information that officers require for passing subject A for promotion. It might also be found very useful as a guide for young officers on joining the service. It is well up-to-date, and gives ample references to text-books and regulations.

'ANECDOTES OF SOLDIERS IN PEACE AND WAR'*

Arranged by J. H. Settle. Published by Methuen.

A correspondent writes:—

'The very interesting article in your October number on the action of Campo Mayor induces me to ask your correction of a disparaging statement about another regiment in the above recently published book.

'On page 39 an account is given of the death of the famous Colonel Gardiner at Prestonpans in 1745, in which he is described as commanding the Inniskilling Dragoons and being deserted by his men on the charge of the Highlanders.

'The facts are that Gardiner was Lieut.-Colonel of the Inniskillings only up to 1743, when he left them on being given (or purchasing) the Colonelcy of another regiment, and that in 1745 the Inniskillings were in Flanders, one of the three or four Cavalry regiments that were left abroad when the remainder were brought home to quell the rising in Scotland.'

* The Regiment in question was the 13th Dragoons, and it is on record that after an arduous retreat of 50 miles there were no sore backs in the Regiment.—*MAX. ED.*

NOTES

VETERANS' RELIEF FUND

We are glad to hear that the response to Lord Roberts' appeal, issued as it was under the patronage and immediate support of His Majesty, has been so generous and universal, that the objects and aim of the Fund have considerably developed. Lord Roberts writes :—

'In order to free our workhouses from veteran sailors and soldiers it is necessary not only to take them out, but to keep them out ; and in this way the Veterans' Relief Fund will from this moment recognise the claims of those who by their own exertions have kept themselves hitherto out of the workhouse, as well as those whose powers have failed and for whom no other fate has in the past been possible. All money subscribed will be devoted to the primary object for which the Fund was started, but, in addition, help will henceforth also be afforded to the many hundreds of worthy veterans who have hitherto preserved their independence, but whose increasing age and infirmity threaten them with the indignity of the poor-house and the pauper's grave. The Executive Committee have from the first accepted the duty of providing where necessary for the honourable burial of a veteran, whether within the workhouse or outside. There can be no greater discouragement to recruiting in this country than the sight of a medalled veteran being taken to his last home with all the ignominy of a pauper's funeral. The organisation of the Veterans' Relief Fund promises well for the full attainment even of our extended purposes. But I cannot too strongly impress upon all those who sympathise with the aims of the Fund that he gives double who gives quickly. Day by day the Fund hears of the death in a workhouse of some veteran who might have been helped to end his life in decency and respectability, and it is a poor consolation to think that all we have yet had to offer has been the Union Jack spread over the body of the man who, fifty years ago, risked his life for all that the flag of England means to us to-day.'

We shall be glad to receive and forward subscriptions for this Fund, whether large or small.

THE NATIONAL HORSE SUPPLY

At a discussion on the above subject, which took place at the Royal United Service Institution, Colonel Granet, of the Remount Department of the War Office, said that the number of horses required on mobilisation to bring our units up to war footing were 53,084 for the expeditionary force—by which he meant the Regular Army—and 120,680 for the territorial force, making a total of about 173,770. Of these 59,000 were riding horses. They considered that they should have, besides these, an immediate reserve of 10 per cent. of our expeditionary

forces to meet such casualties as losses in transit by rail or sea, epidemics of disease, or casualties in action. Assuming that our casualties were such during the campaign that every mounted unit required re-horsing at the end of six months, which was very much less than the number of casualties which took place during the South African campaign, they calculated that by the end of twelve months they would have used 332,320 horses, of which 180,000 would be riding horses. They had great difficulty in estimating the military horse population of the United Kingdom; but with the assistance of the Board of Agriculture, chief constables, and masters of hounds, and other country gentlemen, the remount officers, after a good deal of hard work, had estimated that the military horse population amounted to about 1,250,000, of which only 150,000 were riding horses. They would see, therefore, that at the end of twelve months we should have more than used up the supply of horses fit for Cavalry. It must not be forgotten that during the South African war the horse markets of the world were open to us. There was scarcely any doubt that in any future campaigns this advantage would be denied to us. The figures he had given as to the horse population were, unfortunately, decreasing. They learned from the Board of Agriculture that 10,000 fewer foals were dropped in 1906 than in the previous year, and that quite 75 per cent. of them would have been of a type suitable for military purposes. In Ireland, too, there was a great decrease. In 1907 there was a decrease of 1,457 brood mares, and of 1,256 in what were classed by the Board of Agriculture as amusement or recreation horses, which would also be suitable for war. He ought to tell them that the Government, as represented by the Secretary of State for War and the President of the Board of Agriculture, had a scheme well in hand for the purpose of encouraging the breeding of the type of horse required, and that the War Office was also taking means to secure a larger reserve than it had at present to facilitate mobilisation.

Mr. Algernon Turnor, chairman of the Brood Mare Society, dealt with the memorandum which put before the Government in 1906 certain proposals which grew out of the conference summoned by the Government at the Board of Agriculture. That memorandum was submitted, before being placed before the Government, to two important Societies—the Council of the Hunters' Improvement Society and the Committee of the Brood Mare Society. It was closely examined and unanimously approved. The memorandum divided itself into four parts—the organisation required, the provision of suitable mares, further provision of adequate stallions, and finance. The whole question, to his mind, was one of organisation. What they desired to do was to make the breeding of general utility horses remunerative instead of non-paying, as at present. They had the instances of the thoroughbred and of the shire horse. These industries were remunerative, and neither of these two classes of horses required assistance from the Government. The general utility horse was an animal, as a rule, the result of haphazard and chance. We had not bred him on any sound system or scientific lines, and the result was that we bred a large proportion of misfits. If we could do anything to remedy that, to improve the standard of excellence, to improve the quality and cheapen the production, we should be doing something towards attaining the object in view. The scheme proposed that the Minister for Agriculture should make such arrangements as seemed best to himself for the appointment of an organising committee sitting in London. That committee

should be composed of representatives of his own department, of the War Office, of the Irish Department of Agriculture, and of two or three of the most prominent breeding societies. Its function should be to select the suitable districts of the United Kingdom, organise them, and provide them with a certain number of mares of the right quality. That process would be achieved by following very much the lines laid down by the Brood Mare Society, which selected a district, formed a local committee, through the agency of that committee found out who would be custodians of mares, and took the necessary steps to put mares within the reach of those custodians. It was hoped that the scheme, having been placed before the Government, something would result from it before long which would at all events place matters on a better basis than they were on at present.

There were many other speakers, and various suggestions, a full account of which appears in the April number of the 'Journal of the Royal United Service Institution.'

SHIRE HORSES

The annual meeting of the Shire Horse Society enabled the public to see the splendid specimens of a breed which is now essentially English. In this the peculiar genius of the British agriculturist in developing breeds which have been originally imported from other countries has been shown, just as the English racehorse, descended from the Darley Arabian and other horses of Arab descent, is now exported to improve the breed of horses throughout the world.

Lord Egerton of Tatton writes :—

'The shire horse may still be found useful to fill up the want of horses for our heavy Artillery, if motors are not adapted for that purpose. The mare crossed with a hunter or a coach-horse sire would be the best foundation for our light Horse Artillery.

'The Shire Horse Society has prospered largely under the patronage of the King and other leading agriculturists, without deriving any assistance from the State; but at the present time, when horses are urgently required for military purposes, especially for the mounting of Artillery and transport, it is to be hoped that this and the other Horse Societies may be able to give some assistance to the Government in providing for the larger supply of horses for the Army, as soon as some definite proposals and terms are made by the Government for the encouragement of breeders; it does not seem likely that animals to supply the demand will in the present depleted state of the horse market be forthcoming, nor does the existing working of the King's premiums for stallions lead to the breeding of animals altogether suitable for Cavalry purposes. If the Government can make it worth while for farmers to breed the animals they want, and pay a proper price at four years old, there will be no difficulty in getting a sufficient supply of horses for the Army.'

THE ZAKKA KHEL EXPEDITION

The expedition so brilliantly executed, thanks to the excellent peace training of the troops employed, is only a repetition upon a section of the frontier of what we have been called upon to do scores of times before, and what, so long as there is a North-West Frontier inhabited by such tribes, we may have to do scores of

times again. Owing to the nature of the country there is but little scope for Cavalry operations, but there is always the possibility of individual officers being employed on Staff or other work, and to any who wish to acquire much practical information about the country, and the methods of fighting of the inhabitants, we recommend the perusal of 'The Campaign of Tirah, 1897-98,' by Colonel (now Lieut.-General) H. D. Hutchinson. It is a most interesting account of the country and the operations, and contains many useful tactical lessons.

THE CAVALRY SCHOOL, NETHERAVON

There have recently been considerable developments at the Cavalry School. Yeomanry officers no longer go there to qualify for promotion, and as a consequence the Cavalry subalterns' class is enabled to remain for nine months' instruction, instead of only six, as heretofore.

There is also a 'refresher' course of six weeks, attended by one captain from each Cavalry regiment at home or in the Colonies. This course is intended to 'refresh' captains before taking over command of a squadron.

A further development is the provision of a course for Horse Artillery officers, which is especially welcome to Cavalry officers, as tending to a clearer understanding of the difficult problem of co-operation between Cavalry and Horse Artillery, and a closer connection between those two arms.

There are also courses for senior Yeomanry officers, and it is hoped that room may be found for any officers of Colonial corps who may be able to attend any of the above classes.

Accommodation does not admit of the attendance of more than one N.C.O. from each Cavalry regiment at the school, but it is to be noted that they bring with them two trained horses instead of one as heretofore.

The school has been located in its permanent quarters at Netheravon since October 1, 1907, and, though the hutments are not yet completed, it is a great advantage to be at last settled down in one place.

Programme of Courses

Nature and duration of course	Period of instruction		Probable numbers	
	From	To	Officers	N.C.O.'s
(i.) For Cavalry subalterns (9 months)	1908. March 2	Nov. 28	26 (a)	—
(ii.) For Cavalry captains (6 weeks)	March 16	April 25	22 } (b)	—
	May 11	June 20		—
	June 22	July 31		—
(iii.) For Royal Horse Artillery officers (8 months)	Sept. 1	Nov. 28	7 (c)	—
(iv.) For Cavalry non-commissioned officers (7 months)	April 1	Oct. 30	—	22 (d)
(v.) For senior Imperial Yeomanry (2 weeks)	March 2	March 14	7 }	(e) —
	April 27	May 9	7 }	
	Aug. 8	Aug. 15	7 }	

(a) One from each Cavalry regiment on the Home and Colonial Establishments, and to complete the class, a second officer from certain selected regiments to be detailed by Headquarters.

(b) One from each Cavalry regiment on the Home and Colonial Establishments during the year.

(c) Not to be above the rank of captain. To be detailed by Headquarters.

(d) One non-commissioned officer, not below the rank of corporal, from each Cavalry regiment on the Home and Colonial Establishments.

(e) Only those officers who are in possession of certificates qualifying for the rank of major will attend.

General Instructions

Copies of the syllabus of instruction may be obtained upon application to the Commandant, Cavalry School.

Examinations in the following subjects will be conducted during the Cavalry subalterns' and non-commissioned officers' courses :—

Cavalry duties (including veterinary subjects). By the Commandant, Cavalry School.

Pioneering subjects. By the Commandant, School of Military Engineering, Chatham.

The Commandant, Cavalry School, will forward to the War Office the results of the examination of each officers' class, and will also communicate the names of both officers and non-commissioned officers who qualify, in order of merit, to general officers commanding-in-chief concerned, for publication in Orders, reporting at the same time, confidentially, the names of those who fail.

Certificates will be issued to those officers and non-commissioned officers who are successful. A copy of the certificate, or of the report in the case of failure, will be attached to the officer's confidential report.

Cavalry Subalterns

A candidate must be a thoroughly efficient regimental officer of not less than three years' service, of good physique, a good horseman, must have a good knowledge of practical field sketching and map reading, have passed for promotion to the rank of captain, and be certified by a medical officer as being physically fit to undergo the course.

An unbroken remount will be provided at the school for each officer.

On the conclusion of the course, officers will be granted two months' leave before rejoining their regiments.

Officers detailed from regiments at home will take with them to the school two unmarried soldier servants and two trained chargers.

For those detailed from regiments abroad, servants and chargers will be provided at the school.

Cavalry Non-Commissioned Officers

A commanding officer will be careful to select only those non-commissioned officers who are, in his opinion, not only likely themselves to benefit by the instruction, but who will prove the most efficient instructors on return to their units.

A married non-commissioned officer attending the course will not be accompanied by his wife and family.

Non-commissioned officers detailed from regiments at home will be accompanied by one unmarried fatigue man and two trained horses. For non-commissioned officers detailed from regiments abroad, one fatigue man and two trained horses will be provided at the school. The fatigue man will be paid by the non-commissioned officer at the rates laid down in paragraph 716, King's Regulations, 1904.

An unbroken remount will be provided at the school for each non-commissioned officer.

Royal Horse Artillery Officers

Royal Horse Artillery officers will take with them servants and chargers as for Cavalry officers.

Senior Imperial Yeomanry Officers

Senior Imperial Yeomanry officers will be provided with servants and horses at the school.

DISTRIBUTION AND SUPPLY OF AMMUNITION

We give some extracts from an interesting lecture on the above subject which Colonel F. D. V. Wing, C.B., gave at the Royal United Service Institution in March:—

‘As regards mounted men, the German, French, and Russian Cavalry carry their ammunition in pouches on the belt and in the wallets, and we use bandoliers.

‘For a mounted man, unburdened by the pack of the foot soldier, the bandolier seems a very suitable method, and probably has less objection, from a medical point of view, than for the man marching on foot, who has to carry a further heavy load. For distant raids, or wide turning movements, it may often be necessary for the Cavalry soldier to load himself with extra ammunition, especially as on such occasions he will very likely be far from his ammunition column. He will be better able to do this than his comrade of the Infantry, as his horse's legs, rather than his own, will be responsible for its conveyance. For dismounted action Cavalry may require as much as they can carry.

‘Our Cavalry carry 100 rounds on the man, 100 in regimental reserve vehicles, which consist of limbered wagons, 100 with the Horse Artillery Brigade ammunition column, and another 100 in the divisional ammunition columns—400 rounds in all.

‘A point which seems worthy of attention is the supply to the Cavalry division and the mounted brigades belonging to the army troops.

‘The first reserve, after the regimental one, detailed in war establishments to be carried in the brigade ammunition columns, is conveniently carried in the two Horse Artillery brigade ammunition columns of the Cavalry division, and in the section of ammunition column which accompanies each Horse Artillery battery of the mounted brigades.

‘The second reserve, however, is divided among the six divisional ammunition columns, and must be pushed forward from these to within easy reach of the Horse Artillery brigade ammunition columns (or sections) which will be with the

Cavalry division or two mounted brigades. The duty of the Cavalry division is strategic reconnaissance, the preliminary to which may necessitate a vigorous offensive in co-operation with the guns against the mass of the enemy's Cavalry, and may entail rapid movement a long distance from the main position of the army, as well as a heavy expenditure of ammunition.

'Should the hostile Cavalry be defeated, it might be all-important for the Cavalry division to at once assail the flank of the enemy's main position, or to operate promptly against his communications, which might entail a further rapid advance and heavy fighting, requiring immediate replenishment of ammunition.

'Any uncertainty as to this replenishment would be a serious impediment to success, and it seems that the fact of depending for this supply on four different groups of vehicles, for the Cavalry division, and two others for the mounted brigades, might be liable to cause serious embarrassment.

'It has been suggested that these groups of vehicles would, in such a case, be pooled together and sent forward as a unit in the direction required.

'This would entail orders permeating through all the six divisions from headquarters, and arrangements being made for the collection of the vehicles, unless they went forward in separate groups, moving independently.

'These vehicles, however, are not even separate sections of the divisional ammunition columns, but are a few out of the heterogeneous fourth section, and this pooling would be at least lacking in organisation.

'It, therefore, seems a matter for discussion whether a Cavalry divisional ammunition column should not be formed as a unit on mobilisation of the Cavalry division to carry this second reserve, instead of the six divisional ammunition columns, whose unwieldy bulk would thus be slightly lessened. There is the drawback of forming another noncombatant unit, but if such unit is likely to contribute to the success of the Cavalry operations its formation is justifiable and desirable.

'There is, doubtless, a desire not to hamper the movements of a Cavalry division with any more vehicles than are necessary, and it might be worth considering as to the advisability of making the Cavalry divisional ammunition column a unit of the army troops, to be sent forward when necessary, either as a whole, or by different groups, in different directions.

'On other occasions it might accompany the Transport and Supply column of the army troops, where the ammunition would be more accessible for sending rapidly in a required direction, than it is at present divided among six different divisional ammunition columns.

'If formed as a unit of the Cavalry division it would, presumably, march with the Cavalry divisional Transport and Supply column.

'For our six divisions to take the field, besides the Cavalry division and army troops, the ammunition columns alone will include a total of 2,342 vehicles and 15,660 horses, and will cover road-spaces amounting to sixteen miles. When this force is required to be mobilised, the probability is that it will be necessary to carry out the mobilisation with all speed. The supply of horses will be a question of serious moment, and we must remember that even if all the necessary horses are forthcoming for this force, we shall have fourteen territorial divisions who will presumably be suddenly called on to prepare at the same time, and for whom

a very large number of horses will be required to render them efficient to take the field.

‘Horse Artillery has frequently to be used as Field Artillery, and, as such, similar methods of ammunition supply are suitable to both.

‘The *raison d'être*, however, of Horse Artillery is for co-operation with Cavalry, and at such a time speed may be all-important, especially with regard to the increased power of fire effect of quick-firing guns.

‘Imagine an ideal Cavalry combat—two forces come into view, and, mutually supported by their guns, engage in a combined shock and fire combat—one side gains a superiority and shatters the ranks of its foe with a comparative cohesion of its own. Having attained this first success, the next endeavour will be to sweep on and convert the defeat of the enemy into a rout, or else to launch a further attack of victorious, or reserve, squadrons against his reserves, or troops, in rear.

‘At such a moment success may hinge on a rapid dash forward of the Horse Artillery guns, to either aid, by their fire, the demoralisation of the enemy, or to give time for the squadrons to reform their ranks, and for such an enterprise rapidity of movement and sufficiency of ammunition are essential.

‘The normal system laid down for supply to Horse Artillery is the same as for Field Artillery—viz., to unhook the teams from the wagon limber, which, with the wagon body, is left by the side of each gun. I suggest for consideration whether it would not be better that the normal system for Horse Artillery should be to unlimber and leave the wagon body by the side of the gun, the wagon teams, hooked in to their limbers, going to the rear with the gun limbers.

‘It is a slightly quicker operation to limber up the wagon bodies than to hook the teams in to the limbers, when restive horses may cause some delay, and the wagons would thus be ready sooner for a rapid advance. Each gun would have thirty-eight rounds alongside it, which, owing to the rapidity of the sequence of events in a Cavalry action, may generally be regarded as sufficient, though the twenty-four rounds in the limber might perhaps not be enough. The present method of leaving both the wagon limber and body alongside the gun might be followed when considered necessary on a special order being given.’

THE DISPOSAL OF THE WOUNDED OF CAVALRY

Lieutenant-Colonel Hathaway chose this subject for a lecture at Devonport, when he pointed out that mounted men were on horses to make them mobile, and it was most essential that all arrangements for the care of their wounded should be such as would not hamper a Cavalry leader in his advance, and make no claims on the fighting men, whose duty it was to win the battle and not to care for wounded. Separate special aid should therefore be provided for removing the whole responsibility of provision for the wounded from the fighting men, and placing it in charge of trained bearers. Ambulance transport for mounted troops must be light and strongly horsed, ordinary heavy carts soon wear out draught animals from overstrain and short time for feeding, so that improvements are required in the interests of horseflesh alone. Nobody with a Cavalry ambulance should be on foot for three reasons, viz. :—(1) Because the ambulances have to

move quickly ; (2) because bearers cannot be efficient after marching many miles on foot after Cavalry ; and (3) finally, because only patients should be allowed to ride in a Cavalry ambulance, so as to render it light and mobile.

The lecturer then proceeded to give the details of his system applied to large bodies of mounted troops. The essentials of the system are :—(1) Light ambulance wagons ; (2) mounted bearers ; (3) light stretchers easily carried by a mounted bearer in an ordinary rifle bucket.

The procedure under the proposed scheme is for three mounted bearers to accompany each wagon. At the commencement of an action each section of three bearers advances to the fighting line with one Hathaway Cavalry stretcher. They dismount, and while one of them holds the horses, the two others prepare their stretcher and assist the bandsmen of the regiment in rendering first aid to the injured. They carry the wounded back to the ambulance which has halted near, their horses being led back with them. After placing the wounded in the vehicle, they remount and rejoin the fighting line at a gallop if necessary ; they thus work from front to rear, instead of from rear to front and back again as is done under the existing system. Colonel Hathaway explained the structure of his Cavalry ambulance tonga, which carries four patients, together with their equipment, rifles, and driver, and weighs under 2,284 lb., and as a good draught horse should draw a weight of 1,500 lb. about twenty-five miles a day, it was well within the scope of two horses, even though they were only capable of pulling under the standard load. There is thus a mobile hospital on wheels, for each tonga is capable of carrying four lying-down cases and tenting twelve when stationary at night. Should it be necessary to leave seriously wounded cases behind in a rapid advance, this tonga is self-contained and becomes a twelve-bedded hospital, which when cleared can rapidly rejoin its unit.

THE FRENCH CAVALRY

The Cavalry consists of eighty-nine regiments thus divided :—Twelve regiments of Cuirassiers, thirty-two regiments of Dragoons, thirty-five regiments of Light Cavalry (of which twenty-one are Chasseurs and fourteen Hussars), six regiments of Chasseurs d'Afrique (stationed in Algeria or Tunis), and four regiments Spahis (natives). Of the regiments in France, some are attached to Army Corps, others constituted in brigades and divisions outside the Army Corps formations. The Cuirassier regiments have four squadrons, the other Cavalry regiments five squadrons each. There are seventeen groups of remounts, riding-schools, etc.

THE SPAHIS

It was after the occupation of Bone, in 1832, that General de Rovigo called this Corps into existence ; and the Spahis were actually first recruited from the Turkish garrison of the town. They got their name from the Arabic 'sba,' otherwise 'morning.' They were the men of the morning ; the attackers at daylight.

Their beginnings were small—a couple of squadrons. But under their first leader, the subsequently famous Yusuf, they gave such an account of themselves

that the French Government decided to strengthen the force gradually to its present proportions.

To-day there are four regiments of Spahi Cavalry, each regiment consisting of five squadrons, and totalling 3,500 of all ranks. Three regiments are quartered in Algeria and one in Tunis. The regimental system is an adaptation of that of the old Indian Cavalry in our service. A Spahi, who must own his horse, enlists for a term of four years. He can earn promotion in the commissioned and non-commissioned ranks up to a lieutenancy. Should he become a naturalised Frenchman he is eligible for a captaincy, but instances of this are not common. Anyhow, half the commissioned and non-commissioned officers of a Spahi regiment must always be French. The system interferes as little as possible with native manners and customs. Detachment duty is the usual order of things; and a squadron of Spahis domiciled, you may say, at its particular post, lives, if it likes, in native 'smalah' fashion, every trooper with his womenkind, his children, and his cattle.

For records of service, the Spahis can show the honours of Isly, Lagouat, China, Syria, the Loire, and Tonking, besides innumerable acts of individual prowess and proofs of unswerving fidelity.

THE RUSSIAN CAVALRY AT MUKDEN

Captain Aubert contributes an interesting article to the *Kavalleristische Monatshefte*, and shows that whatever may have been the shortcomings of Cavalry leaders in other battles, it was the Commander-in-Chief at Mukden who, by his orders, not only hindered, but rendered the Cavalry absolutely ineffective, although at the commencement of the fight the Cavalry of the right wing, at all events, evinced some inclination to take an active part. Apparently General Kuropatkin, with 166 sotnias of Cavalry in Manchuria, had at Mukden, on his right or dangerous flank in the open country, only twenty-six weak sotnias of forty or fifty files, the balance being posted in the mountains on his left, where they were absolutely useless.

CHANGES IN THE RUSSIAN CAVALRY

Up to August 18, 1882, the Russian regular Cavalry consisted of:—18 Dragoon regiments; 14 Uhlan regiments; 14 Hussar regiments.

Of these fourteen Dragoon, Uhlan, and Hussar regiments were formed into fourteen Cavalry Divisions, to each of which a Cossack regiment was added, whilst the remaining four Dragoon regiments formed the Caucasian Cavalry Division.

Partly from motives of economy, and partly to introduce a uniform Cavalry trained to dismounted action, on August 18, 1902, the whole of the Uhlan and Hussar regiments were changed into Dragoons and, in the place of the lance and carbine, were armed with the Dragoon rifle and bayonet.

This uniform armament of the Cavalry has recently been abandoned. An order of the Czar, dated December 19 last, reverts to the former differences of designation and armament.

MACHINE-GUNS—AUSTRIA-HUNGARY

Up to the present the two Vienna and Cracow Cavalry regiments alone each possess a machine-gun detachment. The five Cavalry Divisions will each in future have a machine-gun detachment—that is, the two divisions at Vienna and Cracow (which have already one each), and the others will be formed in Lemberg, Stanislaw, and Jaroslaw.

It is further contemplated, should the necessary means be forthcoming, to give machine-guns to the nine unattached Cavalry brigades, so that in time the whole of the Austrian Cavalry will be furnished with that arm. The effective of a Cavalry machine-gun detachment consists of one captain, two lieutenants, forty-three men, and sixty horses (of which six are officers' chargers, forty-two saddle, and twelve pack horses); each machine-gun detachment is divided into two sections of two machine-guns each; to each machine-gun are attached a pack horse for carrying the gun, and two horses for carrying the ammunition (amounting altogether to 14,000 rounds).

The Schwarzlose machine-gun, model 1907, was selected from the two systems experimented with. The training of officers and men for all the new machine-gun detachments is completed by a six-months' course at the Leitha School of Musketry.

JAPANESE CAVALRY AND HORSE ARTILLERY

We understand that the independent Cavalry, hitherto two brigades, is to be increased by a new brigade of two regiments of four squadrons each, and the Divisional Cavalry regiments will be increased from three to four squadrons. As the Cavalry for the new Infantry divisions has also to be formed, the proposed changes indicate an increase in Cavalry of more than 50 per cent. For financial reasons these changes will be carried out gradually. The poor horse *matériel* is to be improved by horse-breeding, by the purchase of stallions from abroad, by the organisation of the stud farms, &c. It is worthy of note that the creation of Mounted Infantry which was at one time contemplated seems to have been abandoned.

Six Horse Artillery batteries are to be gradually formed, every two of which will be grouped together, so that each of the three independent Cavalry brigades will be able to have a group of two batteries. The events of the war must have very clearly demonstrated the absolute necessity for attaching Horse Artillery to the independent Cavalry, for Japan had no Horse Artillery before the war, and that improvised during its course did not fulfil expectations.

ITALIAN CAVALRY OFFICERS

Our illustration gives some examples of Italian Cavalry officers' jumping in the Cavalry School grounds, Tor di Quinto, near Rome. It is interesting to note the different styles—General Berta, Inspector of Cavalry, with a very pronounced 'English seat,' while the lower photographs show the 'Italian seat.' The horses are what we might expect to see (and perhaps have seen) at the Dublin Horse Show.



THE CAVALRY SCHOOL—TOR DI QUINTO.



SHOWING GENERAL VISCOUNT KITCHENER, GENERAL SIR A. HUNTER, AND STAFF.

CAMP OF EXERCISE NEAR POONA, INDIA.

YEOMANRY TRAINING, 1908

The following arrangements for annual training have already been made, but must be considered provisional and subject to alteration.

Regiment	Place of Training	Dates
Ayrshire	Ayr	June 1 to June 15
Bedfordshire	Churn	May 25 to June 10
Berks	Churn	July 21 to Aug. 7
Buckinghamshire	Stowe Park	May 5 to May 22
Cheshire	Plovers Moss, Delamere	May 29 to June 13
Denbighshire		
Derbyshire		
Devon, Royal 1st		
Devon, Royal North		
Dorset	Wimborne	May 11 to May 28
Essex	Churn	May 21 to June 4
Fifeshire and Forfarshire	Annsmuir, Ladybank	June 13 to June 27
Glamorganshire	Port Talbot	May 28 to June 12
Gloucestershire	Sudeley Castle, Winchcombe	May 6 to May 23
Hampshire		
Herts	Woodhall Park, Hertford	May 14 to May 30
Ireland, North of	Curragh	June 19 to July 6
Ireland, South of	Curragh	June 12 to June 27
Kent, Royal East		
Kent, West	Knole Park, Sevenoaks	May 22 to June 5
King's Colonials		
Lanarkshire	Douglas West	June 4 to June 18
Lanarkshire (Queen's Own Royal Glasgow)	Stobs	June 8 to June 22
Lancashire Hussars	Rhyl	June 15 to June 30
Duke of Lancaster's Own	Rhyl	May 26 to June 10
Leicestershire		
Lincolnshire		
London, City of	Brighton	July 24 to Aug. 7
London, 2nd County of	Eastbourne	July 15 to July 29
London, 3rd County of	Brighton	July 24 to Aug. 7
Lothians and Berwickshire	Hedderwick, Dunbar	July 11 to July 25
Lovat's Scouts	Cothill, Brodie	June 12 to June 26
Middlesex	Churn	Aug. 1 to Aug. 15
Montgomeryshire	Builth Wells	May 22 to June 6
Norfolk		
Northamptonshire		
Northumberland		
Nottinghamshire (Sherwood Rangers)		
Nottinghamshire (South Nottinghamshire Hussars)		
Oxfordshire	Wytham Park, near Oxford	May 25 to June 11
Pembroke	Penally	May 26 to June 10
Scottish Horse	Blair Atholl	June 12 to June 26
Shropshire	Walcot Park, Lydbury	May 12 to May 27
Somerset, North	Minehead	May 12 to May 29
Somerset, West	Minehead	May 11 to May 28
Staffordshire		
Suffolk		
Surrey		
Sussex	Meads, Eastbourne	May 22 to June 5
Warwickshire	Warwick Park, Warwick	May 28 to June 12
Westmorland and Cumberland	Lowther Park, Penrith	May 6 to May 21
Wiltshire, Royal	Devizes	May 11 to May 28
Worcestershire	Blackmore Park, Great Malvern	May 29 to June 13
Yorkshire Dragoons		
Yorkshire Hussars		
Yorkshire, East Riding of		

MOVES

The programme of intended reliefs between stations in the United Kingdom, the Colonies, and India during the year 1908-9 (subject to such modifications as may from time to time be necessary) is as follows :—

Unit	From	To
CAVALRY		
2nd Life Guards	London	Windsor
Royal Horse Guards	Windsor	London
7th Dragoon Guards	Canterbury	Egypt
6th Dragoons	Egypt	India
6th Dragoon Guards	India	South Africa
5th Dragoon Guards	South Africa	Dublin
11th Hussars	Dublin	Shorncliffe
20th Hussars	Shorncliffe	Curragh
3rd Dragoon Guards	Curragh	Aldershot
21st Lancers	Aldershot	Canterbury
4th Dragoon Guards	South Africa	Brighton
ROYAL HORSE ARTILLERY		
8th Brigade	Newbridge	Aldershot
14th Brigade	Aldershot	Sheffield
7th Brigade	Ipswich	Newbridge
'A' Battery	St. John's Wood	Aldershot
'BB' Battery	Aldershot	St. John's Wood
'B' Battery	Canterbury	Woolwich

THE STARS MADE EASY FOR SCOUTS

Mr. D. McEwan, of the British Astronomical Association, has invented a very ingenious method of teaching practical astronomy by means of an ordinary umbrella which has a complete chart of the heavens displayed on its inner side when opened. The learner can stand under this and study the stars as if he were examining the sky on a clear night.

A handbook issued with the umbrella explains its use, and shows how you can find the position of any star on any date and at any hour.

For the instruction of scouts in the appearance and movement of constellations, for finding the way at night this umbrella and handbook should be very useful indeed.

The book is published by Aird and Coghill, Ltd., 24 Douglas Street, Glasgow, and the umbrella is made by Reid and Todd, 212 Sauchiehall Street, Glasgow.

THE LANCE

A correspondent writes as follows :—

Apropos of the interesting article on the Progress of the Lance in the January number of the JOURNAL, I came across the following the other day in the 'Memoires of Baron Lejeune' :—

'On my return to Osterode, the Emperor (Napoleon) listened with interest to my account of my adventures, especially to what I told him about the Cossacks who could hit an enemy with their lances at a distance of more than four yards.

He asked me what I thought of introducing this weapon into the French Army, and when I replied that I thought it would be a good thing to do so, he told me to design a suitable costume for a corps of French Lancers.

' Marshal Murat, coming in during this conversation, the Emperor said to him : " You are to equip one hundred men in the costume Lejeune will design, and at once instruct them how to use the lance." Murat approved of the rough sketch I made ; he chose the colours, and formed the hundred men into the Guard of the Grand Duchy of Bey. The Emperor was much pleased with the result, and later he introduced whole regiments of Lancers into his own guard and the army, retaining the uniform I had designed.'

The above incident occurred shortly after the battle of Eylau (February 1807). Lejeune was Aide-de-Camp to Prince Berthier, Napoleon's right-hand man. He was a cultivated, gallant, and brilliant soldier and artist, who was in the thick of the fighting and interesting events of that stirring epoch. He died about 1830, having devoted himself to painting after the Waterloo peace.

His memoirs, which are little known, were reprinted in 1877, and published with an introduction by General Sir F. Maurice, and form a most fascinating book, as good as any novel.

TO HOG OR NOT TO HOG

In our October number we suggested that it would be of interest to our readers to learn the opinion of the men on the above subject. One regiment has kindly forwarded us the result of inquiries among the men of the different squadrons.

R Squadron :—About 75 per cent. of the men prefer the mane for mounting and for the sake of appearances.

A Squadron :—Thirty-seven men in favour of hogging, seventy-three in favour of manes, the latter (chiefly recruits) because they look nicer, and because they find them useful in mounting, especially with arms.

D Squadron :—Forty-two men in favour of manes, twenty-nine in favour of hogging—for the same reasons as above.

C Squadron :—75 per cent. in favour of manes.

From the foregoing it appears that there is a considerable majority in favour of manes.

OBITUARY

All Cavalrymen regret the death of one of their most distinguished comrades, Lieutenant-General Sir Drury Curzon Drury-Lowe, G.C.B., Colonel of the 17th Lancers. He joined this regiment in 1855, and was at the siege and fall of Sevastopol. In 1858 he accompanied the regiment to Bombay, and was busily engaged in Central India during the concluding scenes of the Mutiny, being mentioned in despatches for distinguished conduct at the action of Zerapore. He became lieutenant-colonel in 1866, and served throughout the South African War of 1879–81, being present in both the Zulu and the Transvaal campaigns, at first in command of his regiment, and afterwards in charge of the Cavalry in South Africa. Slightly wounded at Ulundi, he received a mention in despatches and the C.B. In 1882 he sailed with Lord Wolseley's force to Egypt in command of the

Cavalry Division, where he enhanced his reputation by the moonlight charge at Kassassin and the vigour of his subsequent march to Cairo, being four times mentioned in despatches, thanked by both Houses of Parliament, and made a K.C.B. After commanding the Cavalry Brigade at Aldershot, he became inspector-general of Cavalry, which he relinquished in 1891, being made colonel of his old regiment in the following year, and a G.C.B. on being placed on the Retired List in 1895. He will long be remembered as a fine Cavalry general.

Major John Sanders Cayzer, late 7th Dragoon Guards, whose death took place at Gartmore, Perthshire, on January 14, was born in 1871. At the age of twenty he joined the 4th Dragoon Guards, and transferred as a lieutenant to the 7th Dragoon Guards in 1893. He was promoted captain in 1898, and in the following year served in South Africa as signalling officer with the Natal Army. He was chief signalling officer with Sir Redvers Buller throughout the fighting on the Tugela, and was the officer who established and maintained visual communication with the Ladysmith garrison during its investment. For his services in South Africa Captain Cayzer received the brevet of major and the Queen's medal with six clasps. In 1902 he graduated from the Staff College, and at the time of his death, though on the Active List, was unemployed.

Colonel Joshua Arthur Nunn, C.B., C.I.E., D.S.O., who died at Oxford on February 23, leaves behind him a great record of public service in the Army Veterinary Department. In 1877, after serving as an officer in the Monmouthshire Militia Engineers, he accepted the appointment of veterinary surgeon, Royal Artillery. He served with the R.A. during the Afghan war, 1878-79, and transferred to the employ of the Punjab Government from 1880 to 1885. He was then selected to proceed to South Africa on special duty with the Natal and Cape Governments to study horse sickness. During his tour in South Africa Colonel Nunn saw service in the Zulu rebellion; he returned to India to become principal veterinary officer with the Chin-Lushai F.F., 1889-90. From 1890 to 1896 he was principal of the Punjab Veterinary College, Lahore, and in 1900, after nearly twenty-three years' service, was appointed a lieutenant-colonel in the reorganised Army Veterinary Department. He became a deputy-director-general of the department in 1901, and was P.V.O. in the Eastern Command, 1904-5, P.V.O. in South Africa, 1905-6. He published many works on veterinary subjects, and was for some time editor of the *Veterinary Journal*. The CAVALRY JOURNAL loses in him a staunch supporter, for he was always willing to assist us in any way that he could.

We exceedingly regret that the Cavalry should recently have lost the services of two such young and promising officers as Captain Adrian Rose, of the Royal Horse Guards, and Captain A. Davies-Cooke, of the 10th Hussars, both of whom succumbed to illness on the same day.

ILLUSTRATION ON OUTSIDE COVER

We are indebted to the kindness of Major C. M. Dixon, late 16th Lancers, for the illustration which appears on our outside cover for 1908.

O. LUMLEY, Colonel.



Photograph by Bassano London.]

THE LATE
LIEUT.-GENERAL SIR DRURY CURZON DRURY-LOWE, G.C.B.
COLONEL 17th (D.C.O.) LANCERS.

SPORTING NOTES *

THE Sporting Editor started at Christmas on a visit and sporting tour to East and Central Africa. Readers and staff will wish him good luck and speedy return.

CONCOURS HIPPIQUE

This annual international horse competition takes place at Brussels from May 12 to May 22.

The programme, which is a very comprehensive one, can be obtained from M. Adolphe Dupinch, Secrétaire, Hall du Cinquantenaire, Avenue de la Renaissance, Bruxelles.

Entries can be made to the same address up to May 8.

The Military International commences on May 16. A full account of this competition appeared in *CAVALRY JOURNAL*, Vol. I., No. 3, July 1906, and, with a few minor alterations, the same conditions apply to the present competition.

Motor trials are becoming as popular in India as at home. Captain Jenkin, R.A., who is one of the leading military motorists, should show up well in the Bombay Cup contest. A non-stop run from Bombay to Poona, accomplished on a giant Siddeley car, stands to his credit.

A combination 3 inches by 1 inch Bit has been received by the Sporting Editor from the 'Three in One' Bit Syndicate, and would appear worth a trial for either hunting or polo. It is light and extremely simple. No curb hook is used, and the pressure on the poll when using the curb rein is avoided by passing the bar of the bit through holes in the two rings, to which snaffle, bridle, and headstall are attached. The inventors claim that the Bit will stop inveterate pullers.

GOLF

The newly formed North Kent Golf Club, which recently acquired from Captain R. N. Vansittart, late of the 7th Dragoon Guards, a lease of North Cray Place, gives promise of becoming one of the most popular clubs in England. The club is about thirteen miles from London, thus offering exceptional facilities to town members, a long list of whom has already been secured by the committee presided over by Captain Vansittart. The grounds and club were opened to members on March 1.

* During the absence abroad of Lieut-Colonel J. Watkins Yardley, Lieut.-Colonel C. H. Paynter, late 6th Inniskilling Dragoons, has kindly undertaken his work.

RACING

The Grand Military Meeting took place on Friday and Saturday, March 6 and 7.

Friday.—A Selling Steeplechase of 100 sovs. : Weight for age, &c. ; two miles. Captain R. Hamilton Stubber's b.g. Peter the Great, aged, 11 st. 12 lb. (Owner), 1; Mr. C. Bewicke's b.m. Lady Malta, aged, 12 st. 3 lb. (Owner), 2; Mr. J. B. Foster's br.g. Craddoxtown II., aged, 12 st. 3 lb. (Owner), 3. Ten ran; winner trained by Maher. Won by a head; three lengths divided second and third.

The Grand Military Cup of 500 sovs. (a piece of plate value 100 sovs. and 400 sovs. in specie); the second received 40 sovs., and the third 10 sovs. : 11 st. 7 lb. each, with penalties and allowances; three miles. Captain Paynter's b.g. Mount Prospect's Fortune, by St. Gris—Lady Childers, 6 yrs., 13st. (Owner), 1; Mr. Ross McGillicuddy's b. or br. h. Irish Wisdom, 6 yrs., 11 st. 7 lb. (Owner), 2; Mr. C. N. Newton's b.g. Downpatrick, aged, 12 st. (Owner), 3; Mr. R. C. de Crespigny's Pat Cullinan, 5 yrs., 12 st. (Owner), 4; Mr. R. Bruce's Charlie O'Ryan, 5 yrs., 12 st. (Owner), 0; Lord Gerard's Silent II., aged, 12st. (Owner), 0; Sir T. Gallwey's Leinster, aged, 11 st. 7 lb. (Mr. J. O'Brien Butler), 0; Captain W. A. Pallin's Wild Fox III., 6 yrs., 11st. 7 lb. (Owner), 0; Mr. J. H. Charter's Arizona II., aged, 10 st. 9 lb. (Captain Springfield), 0; Captain C. R. Terrot's King's Furze II., 6 yrs., 10 st. 9 lb. (Owner), 0. Winner trained by Maher. Pat Cullinan made the running from Irish Wisdom, Arizona II., Charlie O'Ryan, and Leinster, with Mount Prospect's Fortune and Downpatrick next, to the water, where Arizona II. fell. Passing the stands Leinster became third and Charlie O'Ryan fourth; then came Mount Prospect's Fortune, Downpatrick now acting as whipper-in. After covering rather more than half the journey Irish Wisdom lost his place and Pat Cullinan gave way to Charlie O'Ryan, Leinster still holding third position, and the trio being well clear of the remainder, who were led by Irish Wisdom and Mount Prospect's Fortune. At the water Charlie O'Ryan blundered and Leinster assumed the command, while Irish Wisdom again took second place, in front of Pat Cullinan. Five furlongs from home Leinster was done with, and Irish Wisdom went on from Mount Prospect's Fortune. The latter got the better of the other in the run in, and won by four lengths; six lengths divided second and third. Pat Cullinan was fourth, Charlie O'Ryan fifth, and Wild Fox III. last. Time 7 min. 1 sec. A more sporting race than the one for the Gold Cup has seldom been seen. Captain Paynter and his good horse were accorded a grand reception on returning to weigh in.

The Past and Present Steeplechase of 150 sovs. : Weight for age, &c. ; two miles and a half. Major J. D. Edwards's ch.h. Burra Sahib, 5 yrs., 11 st. 10 lb. (Mr. J. O'Brien Butler), 1; Captain R. H. Fowler's ch.g. Razorbill, 5 yrs., 12 st. 1 lb. (Mr. R. Bruce), 2; Lieut. Backhouse's ch.g. Glan Mazarin, 5 yrs., 11 st. 5 lb. (Mr. Alexander), 3; Mr. C. N. Newton's Irish Poplin, 6 yrs., 12 st. 3 lb. (Owner), 4. Also ran: Captain L. S. Denny's Savanaka, aged, 12 st. 13 lb. (Owner). Winner trained by Owner. Won by a length and a half; a bad third.

A Maiden Steeplechase of 100 sovs. : Weight for age, with allowances; two miles. Captain W. A. Pallin's b. m. River Saint, aged, 11 st. 8 lb. (Owner), 1; Mr. Ross McGillicuddy's ch.g. Foolhardy, aged, 11 st. 3 lb. (carried 11 st. 6 lb.) (Owner), 2; Mr. J. H. Charter's ch.g. Kilsby, 6 yrs., 10 st. 12 lb. (Captain

Springfield), 3. Also ran: Captain R. Hamilton Stubber's Killester, 6 yrs., 11 st. 3 lb. (Owner). Winner trained in Ireland. Won easily by six lengths; a bad third. Killester fell at the water.

Saturday.—Grand Military Handicap Steeplechase of 200 sovs.: two miles and a half. Mr. R. Champion de Crespigny's ch.h. Warner, 6 yrs., 10 st. 10 lb. (carried 10 st. 12 lb.) (Captain de Crespigny), 1; Captain L. E. G. Oates' Gabriel II., aged, 11 st. 12 lb. (Mr. O'Brien Butler), 2; Mr. R. F. Eyre's Royal Blaze, aged, 11 st. 5 lb. (Mr. Walwyn), 3. Nine ran. Won by three parts of a length: two lengths separated second and third.

United Service Steeplechase of 150 sovs.: two miles. Mr. C. N. Newton's ch.m. Irish Poplin, 6 yrs., 12 st. 3 lb. (Owner), 1; Mr. J. H. Charter's Peter the Great, aged, 12 st. 10 lb. (Mr. O'Brien Butler), 2; Lord Hugh Grosvenor's Brankelow, aged, 12 st. 10 lb. (Mr. R. Champion de Crespigny), 3. Five ran. Won by four lengths.

Tally-Ho Steeplechase of 100 sovs.: three miles. Captain C. R. Terrot's ch.g. King's Furze II., 6 yrs., 11 st. 4 lb. (Owner), 1; Mr. H. Whaley's Coinage, 6 yrs., 12 st. 7 lb. (Owner), 2; Captain W. A. Kennard's Clear the Way, aged, 12 st. (Mr. O'Brien Butler), 3. Seven ran. Won by eight lengths; a bad third.

CALCUTTA PAPERCHASES

The Ladies' Cup—a much-prized trophy—two and a half miles, over fences, was run for on January 28, and won by Lady Violet Elliot, on Lord Harry; Miss Waterhouse, on Lady Gold, second; Mrs. Damiano, on Queen of Hearts, third.

The Viceroy and Lady Minto were recipients of numerous congratulations after the race.

This is the only instance known to the writer of a steeplechase being won by a girl in her teens with no previous experience of race riding.

POINT-TO-POINT RACES

The Annual Point-to-Point races of the 1st Life Guards and Royal Horse Guards took place at Hambleton on February 26, in fine weather. Lord and Lady Lonsdale entertained the company at luncheon, and at the conclusion of the races a meet of the Cottesmore Hounds took place. Results:—

Royal Horse Guards' Point-to-Point Race: Three and a half miles; catchweights over 12 st. 7 lb.—Mr. R. Ashton's Picton II. (Owner), 1; Major W. Mann Thompson's Shamrock (Owner), 2; Lord Castlereagh's Circe (Owner), 3. Won by four lengths. Thirteen ran.

1st Life Guards' Point-to-Point Race: Three and a half miles; heavy weights 14 st., light weights 13 st., with penalties; both races run together.—Mr. J. J. Astor's Coptic (Owner), 1; Captain E. H. Brassey's Stag's Eye (Owner), 2; Captain Hamilton Stubber's Mortimer (Owner), 3. Coptic led throughout and won by six lengths. Mortimer was second of the light weights; Stag's Eye first, and King Cole second, of the heavy weights. Thirteen ran.

The Salisbury Plain Cavalry School Point-to-Point races took place on Tuesday, January 21, under the patronage of General Ian Hamilton and a large attendance of Southern Command Officers. The Cavalry School Light Weight race for

General Baden-Powell's Challenge Cup was won by Mr. M. Borwick (Royal Scots Greys) on Bentworth II.; and during the race an unfortunate accident befell Mr. H. W. Malet (18th Hussars), whose mount threw him in taking a jump and he badly fractured his shoulder. Mr. R. M. Stewart Richardson (11th Hussars) won the challenge cup on Actuary, in the Cavalry School Heavy Weight race; and in the open race for officers and subscribers to the Tedworth Foxhounds and Royal Artillery Harriers, the cup presented by Colonel Birkbeck and officers of the school was won by Mr. Thwaite's Lady Enford, splendidly ridden by the Hon. Robert Bruce (11th Hussars).

A very pleasant afternoon's sport was furnished on March 12 by the Point-to-Point races promoted by the officers of the 5th Royal Lancers, who are quartered at York. The course was in the vicinity of the village of Rufforth. Results:

The Regimental Heavy Weight Cup: Catchweights over 14 st.—Major Brown Clayton's Jim Heckley, six years (Captain McTaggart), 1; Mr. Wordsworth's The Shark, aged (Owner), 2; Major Jardine's Weaver, aged (Owner), 3. Five ran. Won by twenty lengths; the same between the second and third.

The Regimental Light Weight Cup: Catchweights over 12 st.—Captain McTaggart's Solace, aged (Owner), 1; Mr. B. Robinson's Red-Wing, six years (Owner), 2; Mr. Sleigh's Kipper, aged (Owner), 3. Ten ran. A good race, won by two lengths; a bad third.

An Open Race, for Members of any recognised pack of hounds in Yorkshire: Catchweights over 12 st. 7 lb.—Mr. J. Wormald's Royal Kendal, aged (Owner), 1; Captain the Hon. C. Foljambe's Prince Rupert, aged (Owner), 2; Mr. E. G. Walker's Squirrel (Owner), 3. Mr. L. B. Holliday's Clearboy (Owner) disqualified. Thirteen ran. An exciting race between Clearboy and Royal Kendal, the latter of whom made practically all the running, ended in the former getting home by a head, but an objection for boring was sustained and the race awarded to Royal Kendal.

Mounted Infantry.—Held at Rhode Farm, Selborne, Hants. Results:

Sweepstake.—Captain A. Armstrong's (Wiltshire Regiment) The Fanatic, 1; Captain M. M. Campbell's (Connaught Rangers) Kathleen, 2; Mr. R. M. Dudgeon's (Cameron Highlanders) Jezebel, 3. Nine ran.

Inter-Battalion Cup.—Mr. H. K. Sandy's (Yorks and Lancs Regiment) Army Reform, 1; Captain P. F. Fitzgerald's (Shropshire Light Infantry) Dolly, 2; Captain A. Armstrong's (Wiltshire Regiment) Daisy, 3. Thirty-five ran.

A match between the East Essex Hunt and 8th Hussars, six aside (light weights 12 st., heavy weights 14 st.), was decided in stormy weather.

Mr. Charters (8th Hussars), 1; Captain Watson (of the Hunt), 2; Mr. Dickenson (of the Hunt), 3; Captain Mort (8th Hussars), 4; Mr. Houston (8th Hussars), 5; Mr. Hills (of the Hunt), 6; Mr. Partridge (8th Hussars), 7. The match was won by the 8th Hussars by 19 points to 17, and the cup presented by the East Essex Hunt Club by Mr. Charters, who started favourite. Mr. Dickenson was leading at the third fence from home, when his horse fell; he remounted, and finished third.

There was a large company at the Royal Artillery Point-to-Point race meeting, held in cold but bright weather at Sherborne St. John, about twelve

miles west of Reading. The course, which was heavy-going, extended over about three miles and a half, and was jointly in the occupation of Sir Richard Rycroft, Bart., and Mr. Charles Chute, who kindly gave permission for their land to be raced over. Results:

Royal Artillery Welter Race for silver cup (presented by Brigadier-General B. Burton).—Captain J. C. Livingstone-Learmonth's Quicksilver (Owner), 1; Colonel G. T. Forestier-Walker's Gay Lad (Owner), 2; Mr. G. Giffard's Niagara (Owner), 3. Seven ran.

Royal Artillery (Aldershot Command) Chargers' Race.—Mr. D. J. Greenshields' Kitty (Owner), 1; Mr. T. F. Sandeman's Joey (Owner), 2; Mr. H. P. Burnyeat's Flounchy (Owner), 3. Thirteen ran.

Royal Artillery Light Weight Race.—Captain E. B. Ashmore's Henrietta (Owner), 1; Mr. J. H. Sebag-Montefiore's Lottie (Owner), 2; Mr. D. J. Greenshields' Cottage Field (Owner), 3. Twenty-one ran.

Open Sweepstakes.—Captain C. Campbell's Playfair (Owner), 1; Mr. O. Dixon's Marksman (Owner), 2; Mr. Guy Hargreave's Red Tape IV., 3. Seven ran.

The Irish Army Point-to-Point meeting took place over the well-known course near Kill Hill, in Kildare:

Welter Weight Race (a cup presented by General Lord Grenfell, G.C.B., G.C.M.G., Commanding the Forces in Ireland); weights, 14 st.; about four miles, over a fair hunting country.—Major Dalton's (R.A.M.C.) The Skipper, by Master Mariner (Owner), 1; Major Smith-Bingham's (3rd D.G.) The Hag (Owner), 2; Lieut. Wandby's (18th Hussars) Samson (Lieut. Wills), 3. Ten starters.

Imperial Yeomanry Race; weights, 12 st.; the race to be awarded by points.—Mr. W. L. A. Goulding's Repeater, by Peterhoff (Owner), 1; Marquis of Waterford's A.D.C. (Mr. Phelps), 2; Earl of Shaftesbury's Orion (Mr. R. Magill), 3. Ten starters. The South of Ireland just won by one point.

Light Weight Race (a cup presented by his Excellency the Lord Lieutenant); weights, 12 st.—Major Smith-Bingham's (3rd D.G.) Michael Pegasus, by The Mariner (Captain Longmore), 1; G. Bannantyne's (11th Hussars) Patch (Owner), 2; Mr. Kingham's (3rd D.G.) Night Watch (Mr. Potter), 3. Fourteen starters.

The Hon. R. Bruce (11th Hussars) rode the winner of the Farmers' Race.

At the 3rd Dragoon Guards' Point-to-Point meeting Colonel Grenfell's Laurium (ridden by Captain Weir) won the Regimental Cup, and Mr. Worthington's Sheila (Owner up) won the Subalterns' Cup.

The 7th Dragoon Guards had a successful meeting at Wye, Major Gaze's Fauvette (Owner) winning the Regimental Cup, Mr. Wood's Yeoman (Owner) the Subalterns' Cup, and Mr. Findlay's Charlie (Major Dyer) the Chargers' Race.

At the 11th Hussars' Point-to-Point Races, Mr. Marshall's Sabre won the light-weight, and Mr. Stewart-Richardson's Actuary the heavy-weight Regimental Cup, while for the Subalterns' Cup the Hon. L. White's Dempsil was successful in the light-weight and the Hon. C. Mulholland's Camel in the heavy-weight race.

THE GRAND MILITARY POINT-TO-POINT STEEPLECHASES

The annual Army Point-to-Point Steeplechases were held on March 19 over a fine line of natural country in Northamptonshire, three miles from Weedon, under the management of Colonel S. H. Toogood and Major G. J. Fitzgerald. There was an especially good entry, thirty-nine horses, representing twenty-two regiments, being entered in the Light Weight race, which was for horses five years old and upwards, the property of officers on full or half pay of the Regular Army, that had not won a race under the recognised rules of steeplechasing in any country, point-to-point races excepted; while eighteen faced the starter in the Welter race, in which the conditions were the same, excepting that the catchweight was 13 st. 7 lb. The Light Weight event, in which twenty-six started, was a pretty race to watch, but from the beginning Major E. J. R. Peel (Royal Field Artillery), on Merry Song, and Captain G. C. Paynter (Scots Guards), on Roscommon II., singled themselves from the remainder, and Major Peel gained the verdict, clearing the last jump a few lengths ahead of his opponent. The Welter event was quite as exciting. Up to within a furlong of the winning-post Lord Hugh Grosvenor, who rode Captain P. B. Cookson's (1st Life Guards) Hewitt, looked a certain winner, for he had a long lead and was riding easily. His mount, however, pecked at one of the last fences and brought his rider down. Mr. G. Powell (Grenadier Guards) then took up the running on Kuropatkin, and won by a neck from Mr. M. Borwick's (Royal Scots Greys) Abingdon. Captain C. L. Campbell's (16th Lancers) Elmwood was a fair third.

THE 1ST CAVALRY BRIGADE POINT-TO-POINT RACES

Held at Hawthorn Hill. No less than sixty-five starters competed for the six races, and the winners were all ridden by their owners.

Colonel Kenna's Twister II. and Captain Pilcher's Rob Roy won the two races of the 21st Lancers.

Major Dalgety's Sam and Mr. Thornton's Thomas won the two races of the 7th Hussars.

Captain Campbell's Playfair and Captain Bellville's Egard won the two races of the 16th Lancers.

POLO

The final for the Khartoum Challenge Cup took place on Friday, December 27. Six teams competed, the Staff team proving the winners.

The following are the dates of some of the principal fixtures for the coming season :—

May	25-30.	Ranelagh, Army Cup.		
"	25.	Ranelagh, Aldershot v. Ranelagh.		
June	8-13.	Hurlingham, Champion Cup.		
"	15-20.	" British Olympic Cup.		
"	30.	" Inter-Regimental Tournament (semi-final).		
July	1.	" "	"	"
"	4.	" "	"	(final).
"	6-11.	Ranelagh, Subalterns' Cup.		

For the British Olympic Cup it is expected that teams from America, Spain, Sweden, Hungary, France, and Canada will compete.

The Inter-Regimental Polo Tournament at Meerut resulted in a win, for the second year in succession, for the 10th Hussars, who beat the Carabiniers by six goals to four goals after a good match.

There were nine entries, which included the Rifle Brigade, Central India Horse, Royal Dragoons, 12th Lancers, King's Dragoon Guards, 17th Lancers and 15th Hussars.

The 10th Hussars were represented by Captain Hon. A. Annesley, Captain Gibbs, Mr. Palmes and Mr. Palmer; and the Carabiniers by Mr. Kermard, Captain Watson, Major Kirby and Captain Heseltine.

In February a week's Polo tournament was played at Moratella, the country seat of the Marquis de Viana, near Cordova. His Majesty the King of Spain took part in the matches.

This is the first private Polo tournament which has taken place in Spain.

At the annual meeting of the Indian Polo Association, held in the first week of March at Meerut, certain proposals were made with a view to bringing the Indian championship more into line with the Inter-Regimental Cup at home, and playing off preliminary ties in divisions or districts. It is probable that the limit height of ponies in India will be raised from 14.1 to 14.2.

In the final of the Meerut Polo Tournament, played in November last, the 12th Lancers beat the 5th Cavalry by four goals to one, extra time having to be played. The cup was presented to the winning team by Mrs. Henry.

Lucknow.—The cup presented by the Royal Dragoons was won by the 15th Hussars after a good game with the 12th Lancers, who in the fifth period were leading by two to nil. The Hussars, however, rallied and equalised matters, and on the goals being widened hit the winning point.

The Indian Polo Association Tournament was played in December last. Contesting teams were 6th Dragoon Guards, 15th Hussars, 17th Lancers, Jodpur Palace, Rajputana Pilgrims, Calcutta Polo Club, Cooch Behar.

Final. Rajputana Pilgrims, 4; 15th Hussars, 3. The teams were: Pilgrims—Moti Lall, Maharajah of Alwar, Maharajah of Kishengarh, Maharajah of Rutlam. 15th Hussars—Captain S. H. Charrington, Lieut. Hon. J. Bingham, Captain F. W. Barrett, Captain N. J. C. Livingstone-Learmonth.

The composition of the Cooch Behar team is unique, consisting as it does of the Maharajah and his three sons.

The Punjab Tournament final was played at Lahore on December 30 between the 10th Hussars and the 1st Battalion Seaforth Highlanders. Result: the 10th Hussars beat the 1st Battalion Seaforth Highlanders by five goals to three.

OLYMPIC GAMES

The President of the British Olympic Association is appealing for funds to carry out the twelve weeks' programme, provide medals, badges and diplomas, and entertain in a suitable manner athletes, judges and committees.

In the present year the Olympic Games will be held in this country for the first time since their inception in 1896. As these games take place only every four years, and many countries desire to hold them, a long time must elapse before they can be again held in the British Isles.

Besides the mere athletic meeting, it is hoped that the youth of the different countries represented, by meeting in friendly rivalry, will get to know each other better and appreciate each other more. Remittances may be sent to Lloyds Bank Limited, 222 Strand, or to Lord Desborough, Taplow Court, Bucks.

BOXING

The Curragh District Tournament took place at the Gymnasium, Curragh Camp, on December 30 and 31. There were excellent entries for the various events. In the ten-round special contest, Private Berry (11th Hussars), 'feather-weight champion Army and Navy,' beat Lance-Corporal Taylor (1st Battalion E. Lancashire Regiment), the latter giving up in the sixth round in consequence of injury to his shoulder.

One of the most successful boxing tournaments that has ever taken place in York was held lately in the 1st V.B. West Yorkshire Regiment's Drill Hall, Colliergate. About 2,000 spectators were present.

Great interest was taken in the championship of the Northern Command, for a massive silver cup presented by Mr. Bert Rutter, and also a gold medal for the runner-up, for which there was a large entry. Private J. Williams, of the 5th Lancers, in the final met S. S. Snowden, 5th Lancers. The first round of the contest went in favour of Snowden, and in the second round Williams acknowledged himself beaten.

Colonel Anderson (1st V.B. West Yorkshire Regiment) afterwards presented the cup to S. S. Snowden.

3RD DRAGOON GUARDS' BOXING TOURNAMENT

Probably the largest audience (numbering about 2,000) ever seen at the Curragh assembled in the Riding School, Stewart Barracks, on January 18, and showed by their applause their keen appreciation of the excellent programme provided.

The building was well lighted and tastefully decorated with bunting. Great trouble was taken with the seating arrangements, which conduced to the comfort of all.

Captain Webb (late Royal Dragoons) officiated as referee, while Lieut. V. Lawrence, V.C. (18th Hussars), acted as timekeeper.

The following were the results of the chief events :—

Four-Round Contest.—Bombardier Begg, R.H.A., beat Corporal Stanley, 3rd D.G.'s.

Six-Round Contest.—Armoury-Sergeant Ford, R.I.C. (heavy-weight champion Irish Army and Navy, 1906), beat Sergeant Boyd, 3rd D.G.'s (heavy-weight champion Irish Army and Navy, 1907).

Ten-Round Contest.—Private Berry, 11th Hussars (feather-weight champion Army and Navy, 1907), beat Willie Hook, London (8 st. 4 lb. champion of England and Canada).

A boxing tournament under the auspices of the 19th Hussars was held at Norwich on February 6. The programme was of a very choice character, and a packed house was treated to some excellent ring work.

A contest for novices in the regiment was won by Private D'Arcy, who knocked out his opponent after some clever work, in which punishment was taken unflinchingly by both fighters.

Corporal Dolfe, 19th Hussars (10 st. champion of Norfolk), was victorious in a six-round contest for a purse with Petty Officer Denur, R.N.

An exhilarating struggle was the outcome of the meeting between Private Salter, middle-weight champion 21st Lancers, and P. O. Brayfield, runner-up Army and Navy Championship, 1907. The whole ten rounds were gone through, and the verdict, given in favour of Brayfield, was a popular decision.

A large crowd of military and civilians attended the second boxing tournament promoted by the 5th Lancers at York.

The principal event was a ten-round contest between Sergeant Coles, West Yorkshire Regiment, and Private Daly, 18th Hussars, and was won by the first named.

There was a large and fashionable attendance at the successful tournament held at Windsor on February 19. The management was in the hands of Squadron Corporal-Major Eggleton (Royal Horse Guards), and everything passed off excellently. The programme, which included three six-round contests, was as follows :

Novices' Competition.—Trooper Moore, Royal Horse Guards, defeated Trooper Nelson, Royal Horse Guards, in the final somewhat easily.

Six-Round Contest.—Private Harrison, 1st Grenadier Guards, v. Trooper Mellish, 2nd Life Guards.—In the fourth round Harrison gave Mellish a sledge-hammer blow in the region of the heart and knocked him out.

MILITARY CONTESTS IN EGYPT

An interesting tournament was given by the Inniskilling Fusiliers at Alexandria—the last before leaving for Dublin. One of the chief features was a ten-round contest between Private Crilley, Inniskilling Dragoons, and Private O'Malley, Inniskilling Fusiliers. These two have met once before, when O'Malley was given the verdict on points, and the return match was looked forward to with much interest, for both men hold a splendid record. The fight itself went all one way, for Crilley led from beginning to end, and was returned an easy victor on points.

The next item of interest was an eight-round contest between Private Rudge, Inniskilling Dragoons, and Private Boyd, Inniskilling Fusiliers. This proved an easy win for the Dragoon.

RACQUETS

THE ARMY CHAMPIONSHIP

In the absence of the famous Light Infantry pair, who had won the Doubles championship so often, this year's title was decided on Saturday, March 14, at

Prince's Club, Knightsbridge, when the 1st Life Guards and the 4th Battalion Rifle Brigade contested the final heat of the All-Comers' competition. As was expected the Guards won fairly easily, and so for the first time the championship goes to London. Results :

Army Championship (holders, Messrs. Balfour Bryant and Bramwell Davis, Highland L.I., resigned). Final: 1st Life Guards (Mr. J. J. Astor and Lord Somers) beat 4th Battalion Rifle Brigade (Captain S. E. Holland and Hon. H. C. O. Pinkie) by four games to two, with scores of 15—5, 9—15, 15—1, 18—16, 11—15, and 15—2. The winners scored eighty-three aces to fifty-four. Mr. J. J. Astor and Lord Somers are two players who represented Eton and Charterhouse respectively. The records to date are as follows :

1892 to 1894 (inclusive). 12th Royal Lancers (Captain J. C. B. Eastwood and Lieut. E. Crawley).

1895. Royal Engineers (Captain J. Hamilton and Lieut. E. M. Blair).

1896 to 1898 (inclusive). 12th Royal Lancers (Captain J. C. B. Eastwood and Lieut. E. Crawley).

1899. 85th King's Shropshire Light Infantry (Lieut.-Colonel J. Spens and Lieut. E. M. Sprot).

1900. No competition. South African War.

1901 to 1907 (inclusive). 2nd Battalion Highland Light Infantry (Lieut P. Balfour and Lieut. H. Balfour Bryant).

In the Singles Military Racquets Championship the two left in were Mr. J. J. Astor, of the 1st Life Guards, and Captain A. G. C. Luther, of the King's Own Yorkshire Light Infantry. Though the Guardsman won, it was only by the odd game in five. Captain Luther won the first and third games, but did not stay, and Mr. Astor became Singles Army champion for the year.

MAJOR-GENERAL AKIYAMA,

Inspector General of Cavalry Japanese Army.



Akiyama

THE CAVALRY JOURNAL

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*PRÉCIS OF A TRANSLATION BY CAPTAIN
R. A. STEEL, 17th CAVALRY, OF THE JAPA-
NESE CAVALRY TRAINING, 1907*

THE Japanese Cavalry Training (Provisional), 1907, is of special interest as embodying the lessons they have drawn from their experiences in Manchuria. The work is well arranged and comprehensive, and contains no indication of that preference for dismounted action which some military writers anticipated as a result of the Russo-Japanese conflict. The book is divided into two parts:—

Book I. deals with the progressive instruction of the individual, the troop, the squadron, the regiment, and the brigade, on foot and mounted.

Book II. deals with the application of the training thus given to war.

BOOK I.

This book is divided into two sections:—

1. Drill on foot,
2. Drill mounted,

and is prefaced by the following general principles.

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(a) The object of all training is to fit commanders, and their subordinates of all ranks, for war.

(b) Only what is simple succeeds in war, and, 'therefore, only movements of the simplest and most practical kind are to be practised.

(c) The bed-rock of Cavalry efficiency is the individual training of man and horse. Only by the utmost care and patience in the first stages of individual instruction can the best results be obtained.

(d) Instruction should be varied and suited to the condition of the men and horses: manœuvres, the elements of which have been taught in barracks, are to be carried out in varying country, and as often as possible at full war strength.

(e) Upon the personality of the leader, and the way in which his commands are given, largely depends the manner in which orders are executed.

SECTION I. DRILL ON FOOT

Drill on foot aims at fostering military discipline, a soldierly bearing, and skill-at-arms, and teaches the movements necessary to dismounted action.

Instructors are directed, as a rule, to draw their swords.

Chapter I. gives simple details of *individual* recruit's drill, with and without arms, which is to be taught concurrently with gymnastics; it includes the position of attention, turns, marching in quick and double time, marking time, and inclining.

This is followed by the manual of the sword, 'Draw swords,' 'Return swords,' the 'Recover,' and the 'Slope'; the manual of the carbine, the 'Order,' 'Shoulder,' 'Sling,' and 'Present': loading and unloading in a standing position: firing exercises, standing, kneeling, and lying; and finally, instruction in skirmishing, upon which great stress is laid.

The points to be constantly practised are:—

Rapid selection of the target.

Selection of suitable positions for firing.

Utilisation of cover.

Quick loading in all positions.

Sighting.

Use of rests, and quick aiming in all positions.

Self composure.

Aiming at indistinct objects.

Fire effect is the first consideration, cover the second.

Theoretical principles are to be explained, and judging distance practised in conjunction with skirmishing.

Chapter II. Troop Drill.—During the period of individual drill and troop drill recruits are to be formed in squads, in single or double rank, and drilled as a troop.

The troop is formed in two ranks, with N.C.O.s as flank guides (not covered), and told off in *sections of three to five files*; section leaders are placed in the *serre-file* rank in rear of their sections.

Instructions are given for exercises at the halt, dressing, and changing ranks, the *serre-files* doubling round to the rear, and for piling and unpiling arms.

The firing exercise of the troop is carried out with the front rank kneeling, both volley and independent firing being practised.

Examples of words of command given are :—

Volley Firing, ‘at the massed troops in front.’

Troop—Ready.

1,200 metres.

Present.

Fire.

Independent Firing, ‘at the guns on the right of the wood.’

Troop—Ready.

800 metres.

Medium (or rapid) Fire.

On the caution ‘troop,’ the rear rank closes half a pace to its right front, and on the command ‘ready’ the front rank comes to the ‘ready’ kneeling, the rear rank standing.

Firing with mixed sights as a rule applies to units not less than a squadron ; the front rank uses the lower elevation.

The movements of the troop on foot are very simple, and are not apparently intended to prepare it for mounted drill. It marches by the right flank guide unless specially ordered to march by the left, dressing being kept by uniformity of step and length of pace, and the preservation of correct intervals.

Of 'increasing' and 'diminishing' the front there is none, its place being taken by a change from 'line' to 'column of route,' and *vice versa*, thus :—

From line to column of route (at the halt) :—

The command 'right (or left) turn' is given. The men turn in the required direction, and even or odd numbers step forward on the right (or left) of odd or even numbers as the case may be, thus forming four abreast.

The head of the column thus formed can be wheeled to advance in the required direction.

From 'column of route' to 'line' (at the halt). To form line to a flank, the command 'left (or right) turn' is given. Each man turns to the left (or right), finds his place in line, and dresses independently on the guide.

To form line to the front, the command is given 'on the left (or right) to the front—form line.' The leading guide stands fast or moves straight to his front, as the case may be ; the men break files and take the shortest way to the new line.

The disperse and rally is to be practised, and also the extension of the troop from both line and column of route as a skirmishing line, at a regulation interval of about two paces, rear rank coming up on the left of their front rank men.

Movements, the advance by rushes, and changes of direction of a skirmish line are next indicated, and finally the utmost stress is laid upon fire discipline and control.

The following are the chief points touched on :—

The more concentrated in a short time are the effects of fire upon the objective, the greater is its moral effect.

Hurried fire is mere waste of fighting power.

No part of the enemy's position should be unswept by fire, and arrangements must be made with neighbouring units so that gaps are not left.

Unnecessary changes of target derange fire control.

Ranges are to be taken by the range finder, or, failing opportunity and time, to be obtained from adjacent troops, taken off the map, or judged.

In extended formations independent fire has usually the best effect, but must be regulated by the Commander.

Volley firing can only be used at the beginning of an action, or when not under effective hostile fire.

Correct observation of fire is most important, and special observers should be placed in suitable positions.

An exact adherence to the rules for handling the rifle, and strict execution of orders for movement or fire, alone render fire control possible.

Fire discipline demands :—

Courage and steadiness under the enemy's fire.

Intelligent use of ground.

Observation of the Commander's movements and signals, as well as of the enemy.

Instant cessation of fire when the target disappears, or on the word of command.

Exercise when necessary of independent judgment and initiative.

Chapter III. Squadron Drill.—The directions are brief, and reference to Chapter II., Troop Drill, is frequent.

The squadron is formed in the usual way, and 'line' and 'squadron columns' are the only formations indicated.

In line the third troop, or left centre, usually directs, and in forming squadron column, the second, first, and fourth troops follow in the order named.

Directions are given for practising the attack in extended

order, the squadron being divided into a firing line and supports which re-enforce it, and the attack culminates in an assault.

Chapter IV. Regimental Drill.—This chapter contains four paragraphs only.

The squadron is the unit for dismounted action, and the regimental commander merely gives the objective, and allots their rôles to his squadron commanders, who co-operate.

SECTION II. MOUNTED DRILL

The following general rules are given :—

The aim of mounted drill is free movement in close order at all paces, and rapid and orderly deployment.

Training must be progressive according to the condition of the horses.

Paces :—

Walk	.	.	100 metres per minute.
Trot	.	.	220 " "
Gallop	.	.	320 " "
Full gallop	.	.	400 " "

The centre is usually the unit of direction.

Decrease of front begins with the unit of direction, followed by those on the right and left alternately.

To increase the front, the second and third units come up on the right, and the fourth and the fifth (if there is one) on the left.

Commands are given by word of mouth or trumpet sounds accompanied by signals with the sword, or by signal alone.

There are eight signals only.

Chapter I. Individual Drill.—Individual drill is not to be limited to the period of recruit training, but is to be constantly practised throughout the drill season.

Special attention is to be paid to pace, direction, the negotiation of obstacles, and swordsmanship.

Reference is made to separate volumes, entitled the 'Hand-book of Equitation' and 'Fencing Drill,' and directions are

given for drawing, returning, and sloping swords, for advancing and slinging arms, and for loading and firing from the saddle.

Chapter II. Troop Drill.—There are curious differences of method between troop drill on foot and troop drill mounted ; in the former direction is given by the flank, and there is no centre guide ; whereas in the latter a troop leader directs, followed by a centre guide ; again, directions for the formation of column of route from line and for increasing and diminishing the front are quite different from the directions for those movements on foot.

The troop being formed in two ranks is divided into groups of three to five files, groups being equalised as regards the size, training, and endurance of their horses.

N.C.O.s are detailed as right and left flank guides, and a first-class private occupies the position of centre guide.

The troop, including the guides, is then told off by fours.

The directions for dressing, dismounting, mounting, the advance in line, the diagonal march, and wheeling, call for no comment.

Column of route from line is formed by the advance of the section, half section, or single file (Nos. 1, 2, 3, and 4 ; or 1 and 2 ; or 1 of both ranks) on the right, followed by the other sections, half sections, or single files, in order.

Increasing and diminishing the front in column of route is equally simple.

Rank entire is formed to either flank from column of half sections or single files.

Line to the front is formed from column of route by the sections, half sections, or single files coming up on the left of the leading section, &c.

Line to the right or left direct from column of sections or half sections 'is rarely required,' but can be done by the leading section or half section wheeling to the hand ordered, and the remainder forming on the right or left as the case may be.

Extended order is formed from line usually at two metres

interval, rear rank men coming up on the left of their front rank men.

Extended order is practised from column of route, the rear files coming up on the right and left regardless of their numbers and ranks.

The attack is practised both in close order and in extended order, the men cheering as they charge.

Troops are to be exercised in open country, following their leader over all kinds of ground, passing through gaps by the command 'flanks to the rear,' equivalent to our 'break,' traversing woods in extended order, jumping fences and ditches, and crossing dykes with steep inclines which cannot be jumped.

Ground scouts are to be used, and combat patrols, usually of a N.C.O. and two men, are to protect the front and flanks.

In dismounted action, all dismount and the flank men of each rank hold the horses by passing the bridoon reins over their arms.

If the troops are small, the centre guide only of each rank holds the horses.

One N.C.O. commands the lead horses, and any spare N.C.O.s are used for scouting and other mounted duties.

If the troop dismounts in column of half sections, or if when dismounting in line it is desired to give the lead horses complete freedom of movement, one man is left to hold every two horses, and remains mounted.

Chapter III. Squadron drill, needs little comment.

Great stress is laid on training the squadron to follow its leader even without orders, conforming instinctively to his change of pace and direction.

Troop leaders use signals only when working in squadron.

The squadron is divided into four equal troops, unless the number of files in a troop is less than twelve, when the number of troops must be decreased.

The capabilities and character of men and horses in a troop should be uniform, though the first-class privates are to be equally distributed throughout the squadron. Troops are

numbered from the right when the squadron is formed, and retain those numbers in spite of change of formation.

The line, squadron column, and columns of route are the only formations.

Extended order is practised, the extension being sometimes carried out by two troops only, the others following in close order in echelon, or in rear of the centre at 150 metres distance.

In exercising in open country, the squadron should be carefully instructed in utilising the ground with a view to approaching the enemy unseen.

Chapter IV. Regimental Drill.—The object of regimental drill is to practise the several squadrons, already perfectly trained, to work together as a regiment under one command, and to act as a unit of larger formations.

Regimental drill should be carried out both as a drill pure and simple, and also under a tactical idea, thus developing the squadron commander's power of forming rapid and correct decisions, and fostering promptitude of movement on the part of the men.

The formations of a regiment are :—

Line.

Line of Squadron Columns.

Open Column of Squadrons.

Mass.

Column of Troops.

Double Column of Troops.

The evolutions are those ordinarily practised, and are dissimilar from those indicated in our own book only in insignificant details.

Several pages are devoted to the attack ; to gain unobserved a position of readiness and to deploy promptly from the close formation of assembly to the open formation of attack is the main object of these exercises.

When within striking distance of the enemy, the regimental

commander leaves his regiment to follow him under his second-in command, while he rides where he can best see and make his decision.

Stress is laid on the use of ground scouts and combat patrols, which latter should be sent out by flank squadrons even without orders from the regimental commander.

Chapter V. Brigade Drill.—The Brigadier's aim should be to develop his regimental commander's initiative, and thus ensure co-operation between them, rapid decision, and the application of suitable formations to varying situations.

The Japanese brigade consists of two regiments of four squadrons each, and the formations are greatly simplified thereby.

They are :—

Line.

Brigade Line of Squadron Columns.

Brigade Mass.

Column of Masses.

Column of Troops.

Double Column of Troops.

Line.—Regiment in line at twelve metres interval.

Line of Squadron Columns.—Regiments in line of squadron columns at an interval of twelve metres plus the frontage of three troops.

Brigade Mass.—Line of regiments in mass at twelve metres interval.

Column of Masses.—Regiments in mass in column at a distance of thirty metres.

Double Column of Troops.—Regiments in column of troops, parallel and at an interval of twelve metres.

The evolutions are of the simplest.

The fighting distribution is in echelon, usually in two lines, or possibly in three with the third line usually on the flank opposite the second line.

‘ Succour squadrons ’ may also be used if desired.

The Brigade usually deploys with the first line in squadron columns, and the remainder in the formations that best suit the ground.

Lines are usually at one hundred metres distance.

The Brigadier rides where he can best observe the situation, and commanders of rear lines where they can best keep in touch with him, and observe the movements of the lines in front.

BOOK II.

This book is prefaced by the statement that it is impossible at manœuvres to reproduce exactly the impressions of a battlefield—the moral factor is absent, and losses and other incidents which tend to dishearten the men are lacking.

The aim of all peace training must, therefore, be to arouse and foster enthusiasm, and to establish and maintain that military discipline, self-reliance, and mutual confidence which alone can stimulate men to great deeds, and keep them together in adversity.

While adhering strictly to the regulations set forth in Book I., the initiative of leaders is not to be cramped thereby, and it is the power of invariably selecting formations suitable to the conditions of the moment, that is the great factor in adapting peace training to war conditions.

Chapter I. General Remarks.—It is only in masses that Cavalry can obtain decisive results, but even a small body, well handled, can achieve some tactical success.

Surprise is the essence of successful Cavalry action, and to effect surprise exact information and adroit utilisation of the ground are essential. Successful results are achieved by order, concentration, rapidity of movement, and determination.

‘The weapons of Cavalry are the sword when mounted, and the rifle on foot. *As a general rule, Cavalry will fight mounted, but when there is little hope of success by mounted action alone, the rifle will be used to supplement it, and assist in attaining its aim.*’

Cavalry can thus act independently of other arms, especially when accompanied by Artillery and machine guns.

Reconnaissance must never cease, before, during, and after an engagement.

Officers.—The character of the Commander is all important, he must possess intelligence, decision, perseverance, and the power of instantly appreciating every situation, and issuing simple and distinct orders; he must be calm and patient in awaiting his opportunity, and fearless and resolute to seize it when it comes.

Men believe in such a leader, and will follow him anywhere.

Concentration of force is essential, and needless detachments are to be avoided.

The more extensive the scene of action, the wider is the scope for initiative in subordinate Commanders, and it is the superior's duty to ensure their mutual co-operation, and, having pointed out the common objective, to leave them to execute their task, without himself interfering in details.

The limit of independent initiative allowed to subordinate Commanders is that they may not go beyond the intention of their Commanders.

The duty of Cavalry in co-operation with other arms is, prior to joining the combat, to protect the flanks, and to reconnoitre the flanks and rear of the enemy, and finally to carry out the pursuit or cover the retreat.

The Cavalry Commander must therefore keep in communication with his superior Commander and neighbouring troops, and place himself where he can best observe the whole field.

Personal reconnaissance by the Commander in the direction of attack is of the utmost importance.

Rank and File.—A man can only call himself a true Cavalry soldier when he has acquired, by training and experience, the qualities necessary for the performance of his honourable duty.

Inured to hardship and fatigue, undeterred by obstacles, he must ever push on, undaunted by numbers, in face of the enemy's fire and steel.

'The Cavalryman's first weapon is his horse'; he should

cherish it before his own body, and thus in emergency he can rely upon it without fear of failure.

The independent duties he is often called upon to perform demand, in the Cavalry soldier, an intelligence and a self-reliance superior to that of any other arm.

In fighting on foot, men must keep to their places and endeavour to obtain the maximum fire effect, remembering that the closer the range the more effective their fire, and, further, that ammunition supply is difficult, and not a cartridge must be wasted.

Chapter II. The Mounted Combat.—This chapter commences : ‘ In mounted action Cavalry have only one way of fighting, *i.e.* attacking with the sword.

‘ The proper selection of the point of attack, cohesion, determination, and dash will ensure success against greatly superior forces.’

Certain principles follow :—

(a) An attack should always seek the enemy’s flanks and rear.
(b) Sufficient force should be used at the outset to ensure success.

(c) A reserve should always be kept in hand to confirm a success, or provide for an unforeseen contingency.

(d) As flanks are vulnerable, one flank at any rate should be safe, resting upon some pivot of manœuvre, the exposed flank being supported by a detachment in echelon.

More detailed instructions are then given for the assault, melee, pursuit, and rally.

The squadron combat is then dealt with at length ; the fundamental principle being that the Commander should act vigorously and with his full force.

Brief remarks on the regimental combat then follow, and finally the combat of the Brigade, or Division, is dealt with in some detail.

(a) *Fighting against Cavalry.*—Assume the offensive, and in order to facilitate manœuvre, delay your deployment as long as possible.

If you catch the enemy in the act of deployment, gallop at him in whatever formation you happen to be.

The Commander will be well to the front, where he can see the situation for himself. His command will be formed in two or three echelons. The front and flanks will be covered by officers' patrols, and other reconnoitring detachments.

The first line should feel that both its flanks are made safe by the lines in rear, and ride at its objective without detachments.

The second line attacks the enemy's flank, prolongs the first line, or meets an attack against its flanks, and must be at hand to act opportunely.

The third line is in the superior Commander's hand to provide for emergency or confirm a success and support the pursuit of a beaten enemy.

Initiative of subordinate Commanders co-operating to attain the common object is the keynote of success.

(b) *Fighting against Infantry*.—If the nature of the ground forbids an approach under cover and a surprise, Infantry must be attacked in extended order at a gallop, in order to minimise the inevitable loss; the attack should be a converging one from various directions and in successive lines.

In attacking Infantry retreating in disorder, the formation does not matter so long as the attack is vigorous and quick.

(c) *Fighting against Artillery*.—Artillery in position lacks mobility, while in motion it lacks fighting power.

Both in position in long lines, and on the march, it is open to surprise attack by Cavalry.

A portion of the attacking force must always be told off to deal with the escort.

Chapter III. Dismounted Combat. General Principles.—The ability to fight on foot gives Cavalry great independence and enables it to carry out the following duties :—

1. To delay an enemy's advance by holding woods, villages, and defiles.

2. To ascertain an enemy's strength by engaging him and drawing his fire.

8. By threatening an enemy's columns of march, to force him to deploy, or change his direction, and thus waste time.

4. To attack the enemy's bivouacs or billets.

5. To hold important points against superior numbers.

6. To seize and hold important tactical points till the arrival of re-inforcements.

7. In retreat to check the enemy and make him deploy, thus gaining time for the beaten army.

8. To cover the retreat of a force passing through a defile.

9. To protect troops in bivouacs or billets.

10. To form a *point d'appui* for reconnoitring parties.

11. To harass a retreating enemy.

12. To attack posts on a line of communications.

Dismounted action must be short and decisive, the whole available strength being employed at the outset.

The distribution resolves itself into :—

Firing line.

Led horses.

Mounted Support.

The Mounted Support reconnoitres, protects the led horses, confirms a success, and covers the mounting of the firing line.

Ammunition supply is important—the ammunition of the mounted men is to be distributed among the firing line, and a reserve of ammunition should if possible be arranged, and its position made known to all.

Fire discipline is everything.

The plan of attack is to be clearly explained, before the line advances, and each unit's objective is to be given it.

Orders are to be passed on, and units are to assist each other.

Cavalry will frequently have opportunities for opening effective bursts of rapid fire at long ranges.

If Infantry are allowed to approach within 500 metres, the evacuation of the position will be difficult, unless in close country at night.

The Attack on Foot.—Cavalry should not engage in prolonged dismounted attacks. If an attack on foot is unavoidable, for example, when a narrow defile has to be faced, superiority of fire must be sought for at once, and the firing line must get to decisive range without delay.

The Defence.—Fire should be opened at long ranges, and then the action can be broken off at will without serious loss.

If, however, the object can only be attained by an engagement fought to a finish, the Japanese Cavalry soldier will know how to stick to his post, despite the proximity of the horse that could carry him to safety.

A good field of fire is the first essential to a defensive position, and, if time allows, defensive works should be made.

Chapter IV. Artillery and Machine guns with Cavalry.—Guns and machine guns increase the independence of Cavalry and add both to its offensive and defensive power, machine guns being especially valuable in defence.

Guns and machine guns in a Cavalry engagement should usually be massed, the latter forming sometimes an escort for the former.

The Artillery and machine gun battery Commanders should be given their task as early as possible and left to carry it out as best they can.

The guns should at once come into position, fire effect being considered rather than security, and the line of fire being as far as possible at right angles to the direction of the Cavalry attack.

Guns should fire on the enemy's Cavalry, not on the opposing Artillery; their first target is the enemy's first line, and when that can no longer be fired at, then his other lines, or failing them, his guns.

Artillery and machine gun Commanders must follow the changes of the engagement, and co-operate on their own initiative without awaiting orders.

In case of success, Artillery and machine guns will support the pursuit with their fire as quickly as possible.

In defence, Artillery and machine guns are most useful, and

should be disposed so as to bring cross fire to bear on the attack from concealed positions.

Chapter V. Pursuit and Retreat.—Cavalry must consider ‘the pursuit’ a sacred duty. It must be remembered that its real hardships (fatigue of men and horses, discouragement, and the risk of isolated parties being cut off by the enemy) cannot be experienced in manoeuvres; for pursuit in real war must be carried on night and day, regardless of the exhaustion of men and horses, till the enemy is annihilated.

When slackening fire shows that the battle is nearing its end, all Cavalry detachments should rally for the great effort; where ground forbids the employment of large bodies, the squadron commanders should be given the general plan and left to pursue independently. A line of pursuit parallel to, rather than directly following, the line of retreat is usually the best, and with dismounted action, and gun and machine gun fire, the flying columns should be harassed and cut up.

Pursuit should never be abandoned till the annihilation of the defeated army is complete.

In retreat the Cavalry must sacrifice itself to gain time for the army to re-form, and thus disaster may be averted, or at any rate minimised.

Chapter VI. Conclusion.—The object of all training is to fit troops for war.

Regulations are not to be slavishly followed, and fixed and rigid forms of fighting are strictly forbidden, but the better Cavalry Commanders understand the precepts laid down in this book, the more appropriate will be their exercise of command in the ever-changing situations of war.

Initiative is the essence of successful Cavalry fighting; inaction and hesitation will involve greater disasters than a tactical mistake.

‘From Commander to private let the motto of all be “ATTACK . . . but do not be attacked.”’

W. H. BIRKBECK, *Colonel.*

Netheravon, May 9, 1908.

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FAMOUS LEADERS OF CAVALRY

By Col. H. DE B. DE LISLE, C.B., D.S.O., 1st (Royal) Dragoons

I. SEYDLITZ

An appreciation of General Seydlitz, one of the Cavalry Generals of Frederick the Great—The essential points in his training—His victories at Rosbach and Zorndorf—His daring as a junior officer.

HIS PLACE AS A CAVALRY LEADER

OF all Cavalry leaders of the past the name of Seydlitz is one which stands out as a type which deserves the admiration of every soldier. He was famous not only as a leader in the field—like the Cavalry Generals, Murat, Vellerman, Bessières, and Lasalle who served Napoleon so well—but as a trainer of squadrons, a horseman, and a horsemaster. In these capacities he had few, if any, equals, except possibly among Cromwell and his Ironsides. What Crauford did for Wellington in the Peninsula in training and leading his famous Light Infantry, Seydlitz with his Prussian Cavalry did for Frederick the Great in the eighteenth century.

THE ESSENTIAL POINTS IN HIS TRAINING

Seydlitz' success was chiefly due to the thoroughness of his training. Being himself a finished horseman, he made this the chief qualification of every Cavalry soldier under his command, and he considered no man a trained Cavalry soldier unless he was able to break and ride any animal and to cross at a fast pace any country, however difficult. He was a great believer in working without stirrups, since he held that unless a man was independent of such aids his seat could not be sufficiently firm to ride difficult horses.

Next to horsemanship Seydlitz placed skill in the use of his weapons as the most important of a Cavalry soldier's qualifications.



SEYDLITZ.
GENERAL OF CAVALRY.

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from 'Burbaum Leipzig,' 4th edition (price 7 Mk. 50 pfg.).*

Besides being very proficient in this art, he was himself an able instructor.

As a consequence of the severity of his training his men became brilliant swordsmen, and not only could cross any country, but without hesitation swim any river.

It was found that this high state of individual efficiency could not be attained without occasional accidents, and when he was once called upon to explain to the King how so many accidents occurred in his regiment, he replied : ‘ Your Majesty has only to give the order and there shall be no more accidents, but in that case I cannot consider I am to blame if my regiment does not acquit itself with credit before the enemy.’

THE BATTLE OF ROSBACH

Seydlitz reached the zenith of his fame in 1757 when, during the battle of Rosbach, the King placed him in command of the Cavalry, though junior to all the Major-Generals. He at once solved the difficulty of his position by saying to the assembled Generals : ‘ Gentlemen, I must obey the King, and you must obey me—advance.’

Placing his Cavalry on a flank of the allied armies of France and Austria, who were advancing to the attack, he waited till the moment arrived for a successful charge. Then hurling his thirty-three squadrons against the enemy’s flank he forced whole battalions to surrender, and won a brilliant victory after pursuing the enemy until dark and again on the following morning. For this action he was decorated on the battlefield by the King with the insignia of the Black Eagle, proudest of Prussian orders, and a few days later was promoted Lieut.-General. By his achievements he had risen from Colonel to Lieut.-General in six months.

THE BATTLE OF ZORNDORF

At the battle of Zorndorf Seydlitz again displayed that power of appreciating the right moment to use his Cavalry, which is

perhaps the highest gift of a great leader. Twice he received orders from the King to charge, and twice he replied that to do so would be to sacrifice his men to no purpose before the moment when they could be effectively used. The third message from the King was to the effect that after the battle his head should pay for his failure to obey. 'Tell the King,' said Seydlitz calmly, 'that after the battle he can dispose of my head as he will, but till then he must permit me to use it as best I can in his service.' Shortly after this, the right moment having arrived, Seydlitz charged the enemy's Cavalry and Infantry again and again, with the result that another brilliant victory was won.

After the battle the King embraced the Cavalry General, thanking him with deep feeling, and saying: 'Here is another victory I owe to you.' 'Not to me, sire,' replied Seydlitz, 'but to the brave men I command.'

HIS QUICK INITIATIVE

It was Seydlitz who, as a cornet, told the King that a Cavalry soldier, properly mounted, should never fall into the hands of the enemy. The King listened in silence until passing over a bridge into a fortress, when he ordered the drawbridge to be raised, and turning to Seydlitz said: 'Well, you are mounted, you cannot cut your way through my escort, so you are my prisoner!' Without hesitation Seydlitz is reported to have turned his horse at the parapet, jumped into the river, and gained the opposite bank in safety.

Whether this story is true or false it is not too impossible to be believed, and is quite in keeping with the daring which Seydlitz ever displayed in the face of danger.

Boldness and quickness of decision are necessary attributes for a Cavalry leader, and when combined with a consummate knowledge of war and the intrepid bravery to ignore even the repeated orders of a King, we find the qualifications necessary to make a famous soldier like Seydlitz.

WIRELESS TELEGRAPHY FOR CAVALRY USE

By Major E. G. GODFREY-FAUSSETT, R.E.

The need for a more rapid means of communication than those which have been in general use—The advantages of wireless telegraphy—Description of the apparatus—The possibilities and present limitations of wireless telegraphy—Organisation of wireless telegraph stations for use with Strategical and Protective Cavalry.

THE great extent of country covered by the operations of modern armies, and the length of time during which engagements last, have brought the necessity for improving the older means of communicating reports and orders into a position of the first importance. In the days of Wellington great reliance was placed on officers picked for reconnaissance, whose superb mounts and daring riding were the admiration of our opponents. Unfortunately, however, horseflesh has not improved in the same ratio as the range of fire arms, and nowadays it is necessary to depend more and more upon other methods of communication.

Visual signalling—flag, morse, and helio—has been developed to a state of very high efficiency in the British Army, but, except in certain climates and in certain descriptions of *terrain*, it can only be employed within limited distances. Field telegraphy, with airline or cable, meets the case to a great extent, but this method suffers from the necessity for safeguarding the lines, and from the difficulty of shifting them when the stations at both ends are constantly on the move.

With a Cavalry Division these difficulties are at their greatest. The headquarters of the Division will be far ahead

of the army, the intervening country will not be sufficiently under control of the army to prevent damage to wires, and the moves will be frequent. The advance of Sir John French's Cavalry Division on Kimberley is a good example: a cable was run out as far as Kimberley, but it only worked for a few hours since the whole of Cronje's force passed over it. No attempt could be made to follow the Cavalry from Kimberley to Koodoos Drift, and the success of the second part of the operation was not in any way due to means of communication, which were practically non-existent. It would not be difficult to imagine slightly altered circumstances under which this lack of communication might have vitiated the whole operation.

The recent invention of wireless telegraphy in a great measure fills the gap. Its range is large enough for all practical purposes, it has no lines to be safeguarded or picked up, the nature of the *terrain* only affects the range over which it can be worked, and a station which has moved, and so lost touch, can regain it from any position so long as it is within range.

It suffers at present from certain disabilities; for instance, it cannot work when on the move, it is almost impossible to prevent an enemy who has a station within range from reading the messages, and it is difficult to prevent him from interfering with them when he is within range and has discovered the 'tune.' Several of these disabilities are, however, in a fair way to be overcome.

APPARATUS

It is now some nine years since the Army began to experiment with wireless telegraphy, and during that time many systems have been investigated. Though this article is directed more to practical results than to technical methods, some description of apparatus will not be out of place. The following is a very brief and elementary description of one of the earliest and simplest methods.

The two ends of the secondary of an induction coil * are connected to two small metal spheres, which are brought close to one another, and these spheres are in their turn connected by rods to two large metal balls. If a rapidly interrupted current is passed through the primary coil, the opposing positive and negative charges of the spheres break down the air-gap between the balls and spark across. In this way successive and rapid electrical oscillations are caused, which are not only visible to the eye owing to the spark, but also cause changes in the invisible lines of force in the surrounding ether, in the form of waves, radiating out in all directions much like the waves caused in a pool when a stone is dropped into it.

If the hollow metal spheres are replaced by larger capacities, the intensity of the waves is increased. For practical purposes one capacity is suspended in the air, and is known as the aerial or antennæ, and the other is suspended close to the ground, or in some cases is provided by the earth itself.

This is merely a description of a general principle. In nearly all modern spark systems a somewhat different method of generating the oscillations is used, and the oscillations thus produced are made to 'induce' other oscillations in the aerial which actually effect the changes in the surrounding ether.

We find, therefore, that to send out waves the following parts are necessary :—

1. The capacities, aerial and earth.
2. The apparatus for producing the electric oscillations.
3. The source of the electricity for working the induction coil.
4. A key for starting and stopping the oscillations.

In order to receive these waves, and to convert them into morse code, it is necessary to provide some form of coherer, or

* An induction coil consists of a soft iron core round which are wound two coils of wire, one a short thick wire, known as the primary coil, and the other a long thin wire called the secondary. If a current is passed through the primary coil a similar but stronger current is *induced* in the secondary coil.

detector. A simple form of coherer consists of a tube containing metallic filings, which under ordinary conditions is almost an insulator, but when affected by the electric waves becomes a conductor. This coherer is connected up between two capacities—aerial and earth—similar to those before mentioned, and is arranged to work an ordinary morse sounder.

In modern systems the metallic-filings coherer is no longer in general use, both it and the morse sounder being usually replaced by some other form of wave-detector and a telephone receiver, in which the morse signals can be read in the same way as with a field telegraph buzzer.

It will be seen, therefore, that to receive waves the following parts are necessary :—

1. Capacities, aerial and earth.
2. A coherer, or detector.
3. Morse or telephone apparatus.

The same capacities can be used for sending as for receiving, the change being made by means of a switch.

For efficient working the same 'tune' must be used at each end, that is the receiving instruments must be set to work to the length of wave which the sending station is using. It is by varying this wave length, or 'tune,' that several sets of stations are able, without interference, to work over the same area. For the same reason it is necessary to discover by trial and error an enemy's 'tune,' or wave length, before he can be read or interfered with in any way.

The above description applies generally to all forms of spark-telegraphy. The Marconi system is the best known in England, and has attained to a very considerable commercial importance. For various reasons most of the Army experiments have been carried out with the Lodge-Muirhead system, and with the many modifications of it which experience has dictated.

Recently, however, variations amounting almost to a new system have been introduced by Mr. Poulsen. In his method the transmitting gear consists of an arc or lamp, burning in

hydrogen, with the effect that the high electrical tension and sudden discharges of the spark systems are replaced by a continuous series of low-tension waves. The difference between the two systems may be compared to moving an object by a succession of blows, and by a steady push. The Poulsen system has the great practical advantage of noiselessness, and is considerably more simple, since no sparks are produced, and no danger is incurred by touching the apparatus. In addition to this, the heavy switch between the sending and receiving portions can be abolished, and an ordinary morse key used.

Very successful experiments with the Poulsen system have recently been carried out at Aldershot, and it is hoped to adopt many of its best points for the use of the service.

For sending or receiving messages a complete station must therefore consist of :—

1. An aerial.
2. An earth capacity.
3. Apparatus for sending and receiving.
4. A source of electrical energy.

1. Aerials may be suspended from masts, kites, or balloons. Balloons have a great disadvantage in that it is necessary, in order to inflate them, to carry a supply of gas ; while kites, on the other hand, are dependent on a steady wind. For military purposes, therefore, some form of collapsible mast seems to be the most suitable. No doubt future improvements will lower the height which is necessary ; at present an aerial slung on four 40-foot masts will, in ordinary country, give a range of fifty miles, while a station of somewhat different design using a single 80-foot mast can work up to seventy miles.

2. The earth capacity presents no difficulties.

3. The necessary apparatus for sending and receiving may be kept in a wagon ready for use, or carried on pack saddles in boxes.

4. A small dynamo is necessary to provide the current, and an engine to work it. Small petrol engines may be used for this,

while, for very small installations, power may either be obtained by hand with a crank handle, or by foot with a bicycle frame, or by accumulators.

POSSIBILITIES AND LIMITATIONS

There seems at this date no reason to doubt that satisfactory wireless telegraph stations can, in ordinary country, be made capable of working up to 150 miles, the complete station being carried in one wagon. The time of erection will depend on the aerial—half an hour for a 150-mile station, and a quarter of an hour for a 50-mile station, being probably a fair estimate.

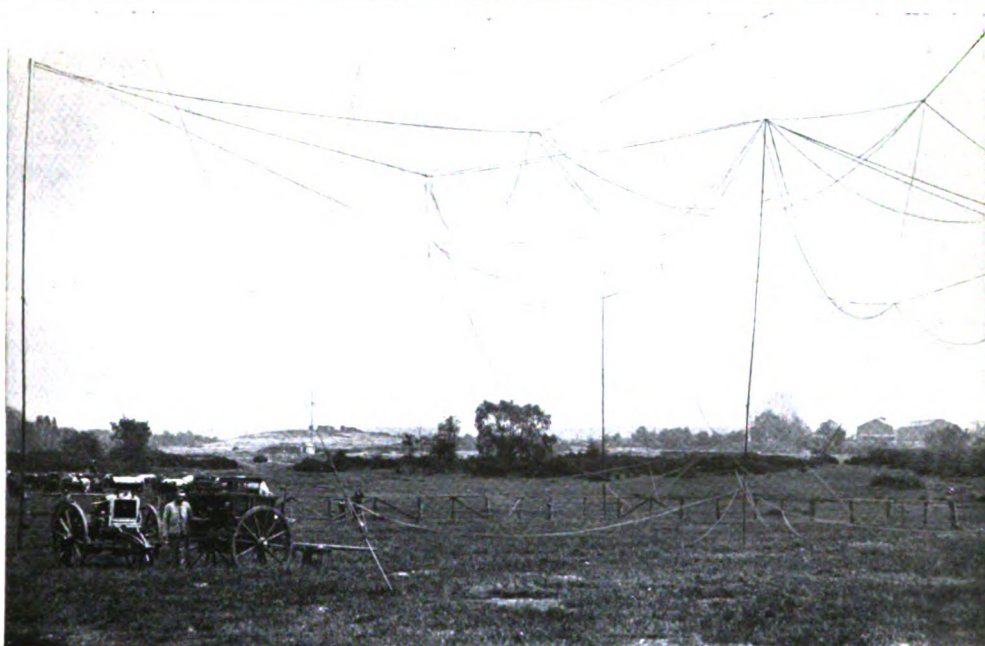
The nature of the *terrain* exercises a certain amount of influence on the range, and the ranges which are quoted here apply to a flat country and are the maximum which may be expected.

As these stations cannot work while on the move, it will frequently be necessary to duplicate them, so that one may work while the other moves, communication with the halted station being carried out by means of orderlies or visual signalling. By this means practically continuous communication will be ensured.

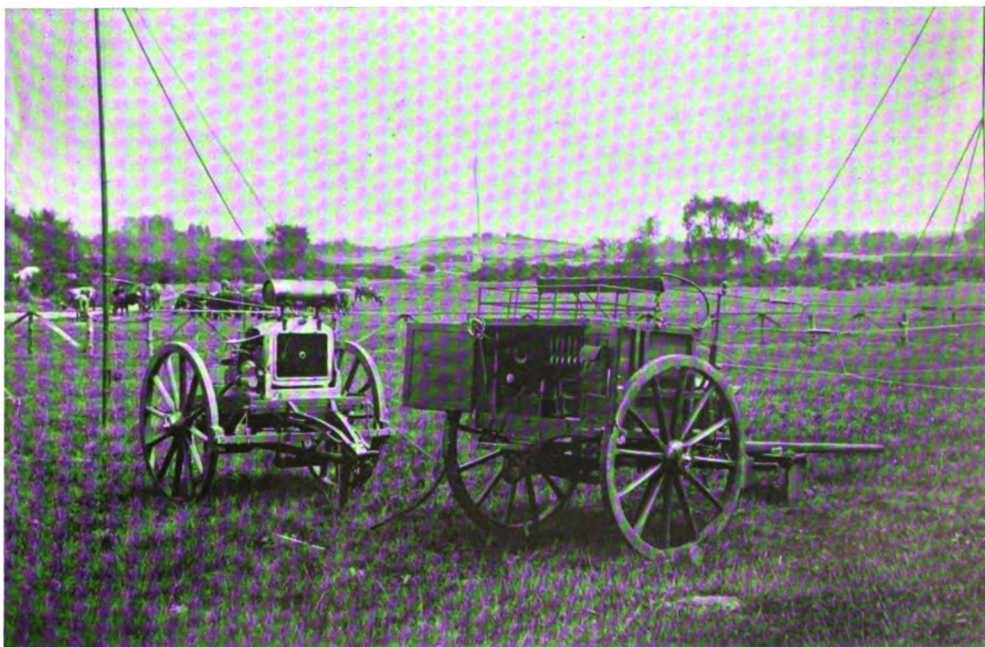
By means of 'tuning' devices it is possible to regulate the wave length used, and so to allow of different pairs or trios of stations working over the same area without interference with each other. No practical arrangement, however, at present exists which will prevent an enemy's station within range from reading messages, at all events after some delay occasioned by his ascertaining the length of wave by which these messages are being sent. The use of cipher, therefore, appears at present to be a necessity. No doubt this difficulty—and it is a serious one—will in time be minimised or overcome. With this end in view, trials of a number of stations on a larger scale than have yet been tried are very desirable.

The inconvenience and delay caused by 'interference' from an enemy's station can be obviated to a large extent by a pre-

WIRELESS TELEGRAPHY.



AN AERIAL CARRIED ON FOUR MASTS.



COMPLETE STATION IN LIMBER-WAGON.

arranged method of changing the tune, so that when two stations find themselves interfered with on one tune they can rapidly change to another, on which it is probable that they will be able to work off their urgent messages before the enemy again interferes.

ORGANISATION FOR USE WITH CAVALRY

Strategical Cavalry

The lines of communication required by the Strategical Cavalry appear to be somewhat as follows :—

1. G.O.C. Cavalry Division to Commander-in-Chief.
2. G.O.C. Cavalry Division to one or more detached Brigades.
3. G.O.C. Cavalry Division, or perhaps G.O.C. a Brigade, to small detached bodies, or strategic patrols.

1. For the communication from Commander-in-Chief to the G.O.C. Cavalry Division powerful stations will be necessary, since the Strategical Cavalry may be far in advance of the army. The duplication of stations at each end of the circuit will also be required, as otherwise it will inevitably happen that one station will be on the move when the other wishes to communicate with it.

To meet this it is suggested that one section of the wireless telegraph company forming part of the Cavalry Division should be equipped with two 150-mile offices, and detailed to carry out this duty at the Cavalry end, while a similar section of the other company with the Army troops should be detailed to perform it at the other end.

2. It seems probable that the Strategical Cavalry will generally be more or less concentrated, and, therefore, that a full equipment of stations to communicate at all times between G.O.C. Cavalry Division and each of the Cavalry Brigades will be unnecessary. No doubt, however, one or more Brigades will frequently be detached to some distance ; to meet this, a section consisting of three 100-mile stations is suggested. These

stations could, by working in a triangle, or 'circuit' of three, keep Divisional Headquarters in touch with two outlying Brigades who were at rest; or two of them could be detailed to one moving detached Brigade, thus keeping it in fairly continuous touch with Divisional Headquarters by means of the third.

3. It may frequently happen that an officers' patrol, sent out wide to a flank, may find it of the greatest assistance to be able to send in reports by wireless telegraphy. Such patrols will, in the ordinary course, be out all night, and it may accordingly be possible, under cover of darkness, to erect a station for an hour and send off important messages.

Small offices, capable of being carried on three or four pack animals, seem suitable for this work. Their maximum range would probably be only about twenty miles, but they would work to a larger one at the other end of the 'circuit.' In this way the effective range of the combination would be increased to approximately the mean range of the two stations engaged. Since two of these stations might well be required simultaneously, and as they would be liable to capture, a reasonable reserve must be supplied—a section containing four small stations is therefore suggested. These pack stations would also be available for communication with other detached bodies.

The 1st Wireless Telegraph Company, which now forms a part of the Cavalry Division, would thus consist of three sections, with two large, three medium, and four pack offices. At present it consists of only four offices, range not yet settled. Speaking roughly, one N.C.O. and eight men are required for each office.

It appears to be of the first importance that this question should be worked out in some detail at an early opportunity. Perhaps the Cavalry manoeuvres of this year could be arranged to throw light on the subject.

Protective Cavalry

The Mounted Brigades detailed for the protection of the Army will also frequently require wireless telegraphy, the distances being too great for satisfactory cable laying. The 2nd Wireless Telegraph Company, forming part of the Army troops, would be available for external communications between the Commander-in-Chief and the Protective Cavalry. For this purpose this company should have a section of three medium offices in addition to the section of two large offices to which reference has already been made. These three medium offices would be worked in the manner described above under (2).

The internal communications of these Brigades also require consideration, since they would frequently be extended over a large area. Experiments are very desirable as to whether pack wireless offices or cable wagons would be more satisfactory. At present no organisation exists except visual signalling.

Divisional Cavalry

In the case of the Divisional Cavalry it is thought that the existing means of communication which are provided either by the Divisional Cable Company's signallers or despatch riders are quite sufficient.

THE FRENCH CAVALRY SCHOOL

By Major G. T. M. BRIDGES, D.S.O., R.A.

The source of French horsemanship—The foundation of the school at Saumur—Description of the school—Classes of officers who attend it—Course of study—Daily time-table—The 'Écuyers'—The horses—The three stages of their education—The 'Sauteurs'—Recreation at the school.

NESTLING under the white cliffs on the left bank of the Loire and dominated by a massive old feudal château lies the little town of Saumur. It is pleasantly situated in the centre of the great wine country, some forty-five miles below Tours, and enjoys a proverbial mildness of climate. This favoured spot has been intermittently the home of horsemanship ever since 1771, when a riding academy was founded there by order of Henry IV. To discover, however, the source of French horsemanship we must go back to the sixteenth century, when Antoine de Pluvinel came to France as equerry to Henry III., bringing with him the florid equestrianism of the Renaissance period. The seventeenth century saw theory vastly outrunning practice, and the cavaliers of the time used to shut themselves up more and more in the riding school, until at last a horse's education came to be looked upon as a matter of several years. A contemporary historian indeed, Gaspard Saunier, relates that in 1691 the horses of the famous riding school at Versailles when required to go to the front succumbed to the fatigue of their first day's march.

To the famous François Robichon de la Guérinière, who died in 1751, belongs the credit of bringing the science of riding in France down to a more practical level, and of reviving again the glories of the French School. His book entitled 'École de Cavalerie,' which was published in 1733, introduces us for the

first time to the 'shoulder in,' which movement he is said to have discovered, while many of his hints on horsemanship have gradually developed into the regulations of the present day. The French school, however, was still regarded as fantastic, and bitter controversy raged between its adherents and the partisans of the practical, or, as it was called, the English school of horsemanship. The latter justified itself when the Prussian horse under Zieten and Seydlitz, with their practical methods, were able to compete successfully with the flower of the more artistic French and Austrian Cavalry throughout the hard fighting of the Seven Years' War.

The year 1767 saw the establishment at Saumur under construction as one of five similar ones in France, and one of its riding schools (the *Manège Montbrun*) still bears that date. The school was opened in 1771, and each cavalry regiment was ordered to send four officers and four under-officers to it yearly.

The storm of the French Revolution, however, swept away the riding schools as well as all breeding establishments in France, and chaos reigned until the Napoleonic era, when, under the eye of the great captain, horse-breeding farms and riding schools began to spring into existence again, although the Saumur School was not actually resuscitated until 1815.

After a short suspension the school was finally established in 1824 in the place where it now stands, and where it has remained since that date.

No great progress in cavalry training seems to have been made in France up to the war of 1870, as during the forty years preceding this campaign the French Cavalry had but the regulations of 1829 to guide them. The disasters of the great war gave the necessary stimulus to training, and from this period on, the best riders and horses in the French army began to find their way to Saumur. The importation of the English thoroughbred also began at this time. From 1870 to the present day has been a period of unbroken progress, during which picked men, and picked horses, judicious expenditure and well-directed energy

have combined to build up a unique establishment which is the pride of the French Army and justly celebrated throughout Europe.

THE SCHOOL

Let us turn from the eventful past of the Saumur school and regard it as it exists to-day.

The picturesque white stone buildings of the 'École d'Application de la Cavalerie,' as the school is now called, surround an open sandy space called the 'Chardonnet,' which is some 300 yards square. The buildings include the Commandant's house, officers' mess, men's barracks, stables, five riding schools, the various supplementary establishments,* pistol and miniature rifle ranges, stores, &c. There are no quarters for officers, though they are contemplated. At present officers live in the town and take their meals at the mess, where the motto is 'plain, good and cheap.'† All unmarried N.C.O.s and men live in barracks.

For instruction in equitation Saumur is well found, having the following accommodation :—

1. The 'Chardonnet.'
2. Five riding schools.
3. The 'Hippodrome de Verrie.'
4. The 'Breil.'
5. The 'Carrière du Carrousel.'

* Want of space forbids a description of the supplementary establishments, which are as follows :—

1. The Veterinary School, which trains all military veterinary officers.
2. The School of Telegraphy, which trains several men annually for each Cavalry regiment.
3. The School of Shoeing, where the farriers for the whole army are trained.
4. The School of Saddlery, which trains all the saddlers and makes all the saddles for the French army. *All the leather and trees are bought in England.*
5. The School of Fencing, where twenty or thirty N.C.O.s are trained, from whom fencing masters are selected and who instruct the officers of the École de Cavalerie.

Messing costs three francs per diem for two meals.

1. The 'Chardonnet' is much used. It is surrounded by a galloping track, and has a jumping lane down one side. There are three open manèges surrounded by high grass banks for lunging.

2. The five riding schools are named Lassalle, Kellerman, Montbrun, Margueritte, and the Manège des Écuyers. With the exception of the little Manège Montbrun all are large (about 80 metres by 30) and well found, being lighted with electric arc lights, and provided with galleries. Each school is furnished with one or two large mirrors, in which the pupil can see himself as others see him, a device that is said to add weight to the words of wisdom of the instructor. Sawdust is used instead of tan. A feature of each manège are the 'piliers' or padded posts to which the 'sauteurs' or buck-jumpers are fastened. Rides seldom exceed fifteen, and the instructor is always mounted.

3. The 'Hippodrome de Verrie' is a tract of some 200 acres of broken heath country of Surrey aspect, sewn with jumps and unexpected obstacles. There is also a small steeplechase course. It is six miles from Saumur, but frequently used.

4. The 'Breil' is a stretch of low-lying land about a mile in length on the bank of the Loire, two miles below Saumur. It is much used in summer.

5. The 'Carrière du Carrousel' is an open sandy square with stands for spectators. Here take place the famous 'Carrousels' or tournaments at the end of each course and on great occasions.

Without including the courses at the subsidiary establishments described above, the following classes attend the 'École d'Application de la Cavalerie':—

1. 'Sous-lieutenants,' about 80.
2. 'Élèves-officiers,' about 80.
3. 'Lieutenants d'instruction,'* about 60.

Of these the 'Sous-lieutenants' are the young officers straight from their one year's course at the military school of St. Cyr.

* About twenty of these are Artillery and Engineer officers.

Formerly they served with their regiments for a year before being sent to the cavalry school, whereas now they do a year in the ranks before going to St. Cyr, whence they go direct to Saumur. The young officer is temporarily posted to a regiment on leaving St. Cyr, but not finally posted until he leaves Saumur, where much depends on his diligence, as choice of regiments is given according to seniority on the passing-out list. Officers may not, however, change from heavy to light cavalry or *vice versa*.

The 'Élèves-officiers' are N.C.O.s qualifying for commissions, an important class in the French Army.

The 'Lieutenants d'instruction' are cavalry officers selected to do their second course at Saumur, and officers of the Artillery and Engineers. One or two officers of this class are generally selected to fill vacancies in the equitation staff at the end of their course.

The course begins on October 1, and lasts ten months, all pupils joining their units for the summer manoeuvres on the expiration of the course.

A few foreign officers are allowed to attend the course. They are expected to do the whole course, and are treated exactly the same as the French officers, but are exempted from some of the theoretical studies. A horse and orderly are supplied to them by the school. There are at present one American, two Swedes, one Russian, one Servian, one Roumanian, and one Chinese.

These officers are unanimous in their approbation of the school and its methods, and it is superfluous to enlarge on the obvious advantages which such a course confers on a young Cavalry officer, placing him as it does at once *au courant* with the methods of those who are the acknowledged masters of their art and in touch with the best of his contemporaries in the French Cavalry.

The commandant of this important collection of establishments is a brigadier or colonel of cavalry, assisted by a lieu-

tenant-colonel whose special duty it is to supervise the training at the Cavalry school.

The permanent staff of the school consists of some fifty officers and officials, eighty N.C.O.s, and 500 men.*

The course of study is divided into three branches, thus :—

1. 'Instruction Militaire,'
2. 'Equitation,'
3. 'Direction des Études,'

and the staff is divided into three sections to correspond.

The 'Instruction Militaire' includes practical field work, staff rides, reconnaissance, drill, the use of the arms mounted and dismounted, fencing, revolver and carbine practice, and the art of imparting instruction and drilling recruits. About twice a week the whole class goes out mounted, and a simple problem is set on the ground, a flagged enemy being sometimes used. The instructional staff consists of one major and nine captains.

'Equitation' comprises the practical teaching of horse-breaking and riding, and lectures on 'Hippologie' (the horse, horse-mastership, practical veterinary work, shoeing, saddles and so forth). This is carried out by a staff of one major, ten captains, five lieutenants, and some N.C.O.s. They are called 'écuyers' and 'sous-écuyers.'

'Direction des Études.' Under this head comes all theoretical work. It includes the war game (once a week), topography (once), telegraphy and signalling (once or twice), German (twice), tactics, military history and geography, and miscellaneous lectures. The instructional staff consists of one major and four captains.

All the instructional staff are in principle Cavalry officers except the instructor in telegraphy, who is an official of the Government Administration of Telegraphs, while N.C.O.s are

* For administration and discipline all the subordinate personnel, as well as the officers, servants, and grooms, are formed into two squadrons, each under an adjutant.

not employed to instruct or drill officers in any subject except fencing. It will be noticed that equitation is divorced from skill at arms, and that the 'écuyers' teach riding and horsemaster-ship pure and simple.

The 'notes' or confidential reports on the pupils are of much importance to their careers, and each section of the instruction as enumerated above can contribute one-third of the total marks obtainable. This is worthy of remark as somewhat of an innovation, for equitation was formerly the sole *raison d'être* of the school. The military authorities, however, have realised the increasing importance of the Cavalry officer's education, and an officer from the general staff has been appointed commandant and the above course of study adopted.

Work begins at 5 A.M. in summer, and 6 A.M. in the winter, all the riding schools being well lighted by electricity.

The time-table changes daily, but an average day's work for the young officer in summer is as follows :—

- 5 to 7. Taking horses over jumps—breakfast.
- 7.15 to 8.15. Schooling horses.
- 8.15 to 10.15. Mounted drill.
- 1.30 to 2.30. Lecture on 'Hippologie.'
- 2.45 to 3.45. Gymnastics and fencing.
- 4 to 5. Lecture, military history, etc.
- 5 to 6. Repetition of back work.

Making some $4\frac{1}{2}$ to 5 hours' riding, and 4 hours' other work, total $8\frac{1}{2}$ to 9 hours. To our ideas this might appear somewhat strenuous, and, following on a hard year at St. Cyr, to be likely to react somewhat on the victim. The hours, however, are elastic, and the time-table is said to be more formidable than the reality.

The course for 'Lieutenants d'instruction' resembles that of the young officers, and their course includes a study of the systems of foreign armies. The object of the course is to prepare the officer for the command of a squadron.

With regard to the instructional staff, the second (equitation) section demands special notice, as being unique. The 'écuyers' wear a uniform of black, with gold buttons and gold badges of rank on the sleeves and 'kepi,' while as a full dress they have preserved the old-fashioned riding school dress of black coat, white breeches, Blücher boots, cocked hat, white gloves and gold-mounted whip, as well as special white horse furniture. They are known as the 'cadre noir,' and form a unique body of some thirty of the finest horsemen of the French Cavalry, selected generally for some brilliant exploit, such as the winning of a big steeplechase or long-distance ride, coupled with a good reputation previously gained at Saumur.

The 'cadre noir' also carries on the methods of the 'haute école,' and horses that pass through their hands reach a pitch of perfection in training probably unequalled elsewhere. This higher training of the horse has for its main object the demonstration of what can be done by hands, patience, and a deep knowledge and experience of equine nature, and in no way partakes of the character of a circus. Probably its best justification is to be found in the respect, amounting almost to veneration, with which the pupils regard the 'cadre noir,' as being senior officers of their own arm who have all earned reputations for dashing riding before coming to the school, and have attained to a plane of horsemanship to which the pupil cannot yet aspire. These facts cannot but lend great weight to the instructions imparted.

The écuyers ride some six or seven horses a day. Their 'réprise' (ride), which takes place in their own manège two or three times a week, is a somewhat impressive ceremony, the audience being required to attend in silence with bared heads. The manège is open to the public, and the galleries, of which there are four, are often full. The chief 'écuyer' leads the ride, and gives the words of command in a low voice. The horses are generally all thoroughbreds, highly trained and ridden with consummate grace and skill. The usual riding school evolutions

are gone through, somewhat improved upon, and ending with a few 'haute école' movements. The saddles used for the manège riding are a modified form of the old-fashioned French ones, covered with a square of soft leather and with a roll in front. After the ride, jumping horses are brought in and a bar of considerable height jumped.

The riding is quiet and artistic, the hands being kept very low and the reins generally allowed to slip through the fingers when jumping. The man is very upright in the saddle, and the stirrup shorter, and the leg further drawn back, than with us. The French authorities claim great power for this seat, and insist on its adoption—to the extent of using the buck-jumping saddle for forcing the refractory thighs of the more adipose recruits into the proper position. All pupils do their first three months without stirrups, generally in English saddles, but never without saddles, while stirrups are sometimes dispensed with up to five months.

THE HORSES.

The horses are the feature of Saumur. They number about 1,200, of which some 400 are the 'chevaux d'armes' or chargers which the pupils bring with them. These 'chevaux d'armes' are used for staff tours and reconnaissance, skill at arms and hunting—for everything indeed except equitation.

The remaining 800 belong to the school, and are made up as follows:—Thoroughbreds (*pur sang*), 850; Halfbreds (*demi-sang*), 200; Anglo-Arabs, 90; various ('chevaux d'armes' &c.), 160.

All the horses mentioned above are actually bought in France, buying abroad being now prohibited.

Of the above 800 some 70 are the Government remounts, which annually join the school, and which are not selected by the Saumur authorities. All the remainder, however, have either been selected at dépôts or actually bought in the open market by a small committee, of which the 'écuyer en chef' is the president. This officer has an annual sum at his disposal that varies somewhat, but that will ordinarily enable him to purchase 25 horses at

an average price of 75*l*. This money is generally expended on thoroughbreds bought as opportunity occurs. Many have won races, as the inscriptions over the stalls testify, but the bulk of this class are racing failures and 'poulains' or two-year-olds, which latter are kept in a class by themselves, and as carefully looked after as if they were at Newmarket. These horses are often the product of imported mares and stallions, there being at present some 5,000 thoroughbred mares in France.

The *demi-sang* horses are mostly Normandy bred, and command higher prices. They are the heavy Cavalry horses of the French Army, and are a good hunter-like class of animal, generally with a docked tail. Some forty-five are selected yearly by the 'écuyer en chef' and bought for the school by the State. Their price is very variable, rising to 200*l*., but it averages about 80*l*.

The Anglo-Arab is the light Cavalry horse of the French Army. The bulk of these horses are bred in the south of France, and most of them come from the region of Tarbes* at the foot of the Pyrenees, from dépôts initiated by Napoleon. The Anglo-Arabs vary much in quality, but in the main are light built, fast, easily trained, very enduring and easily nourished, and they are looked on as the best campaign horses in France.

In the 'various' class enumerated above are included horses in training for the military college at St. Cyr and a special class of horse for general officers (about 20).

The horse's education is divided into three stages :—

1. 'Débourrage,' first handling and early training.
2. 'Dressage,' up to the time he becomes fit for the ranks.
3. 'Perfectionnement,' the higher school training.

The 'école de dressage' comprises all horses under training in the riding school, while trained horses are divided into three categories :—

* There is one stud farm at Tarbes equipped with 180 first-rate stallions.

1. Trained school horses ('chevaux de manège').
2. Steeplechasers ('chevaux de carrière').
3. Buck-jumpers ('sauteurs').

The first category are well-trained horses for the early training of the pupils and for accustoming them to various types of horses, for they are frequently changed.

The second category (mostly Normandy horses) are for outside riding and jumping.

The third category are peculiar to Saumur, and number only about 30. The horses in it are selected as being strong and active and often of not much use otherwise, *e.g.* unsound in legs or wind. They are trained by the 'écuyers' and taught the following movements:—

- 1 'Piaffer,' or 'mark time' at a trot, near fore and off hind beating the ground together.

This is the preliminary to the other movements, and is calculated to loosen the rider's seat.

2. 'Courbette,' rearing.
3. 'Croupade,' raising the haunches and kicking.
4. 'Ballotade,' rearing and plunging forward.
5. 'Cabriole,' rearing and kicking out simultaneously, constituting a 'buck' with the head up, a most difficult movement from the rider's point of view.

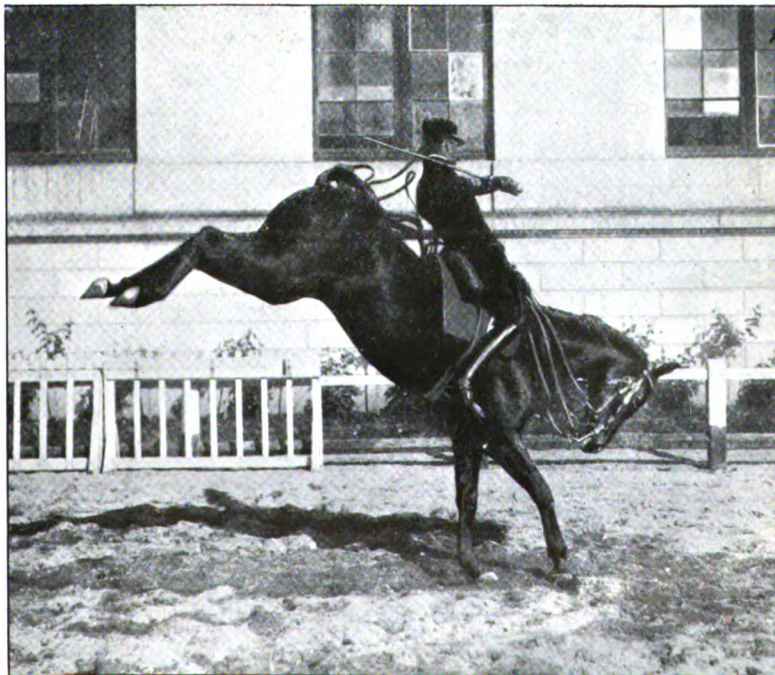
These movements are all taught to the horses between the 'piliers.'

A 'sauteur' is generally brought into the school at the end of the lesson for the pupils to ride. He is tied by the head between the two padded 'piliers,' the pupils mounting in turn. The animal performs each desired motion separately at a sign from the 'écuyer.' The idea is to give the pupil confidence by allowing him to remain in the saddle rather than to shake his faith and his body by letting the horse throw him. Only the 'écuyers' ride the 'sauteurs' free, and a 'réprise' of the 'sauteurs'



SAUTEURS EN LIBERTÉ: LA COURBETTE.

Après avoir dressé les sauteurs dans les piliers ou au mur les sous-maitres les dressent montés seuls, puis par deux, avant de les mettre en reprise.



SAUTEUR EN LIBERTÉ: LA CROUPADE

Captain Féline, Saumur, has very kindly had these photographs specially taken for the Journal.



Sauteurs en liberté.
Travail en reprise.

—
La courbette.



Travaux pratiques de campagne.

Passage de rivière sur un radeau fait à l'aide de sacs et de lances.



—
Cours des Lieutenants d'instruction.

Travaux pratiques de campagne.

—
Passerelle faite à l'aide de sacs, de lances, de cordes à fourrage et de planches quelconques

provides a good deal of entertainment to the occupants of the galleries, the animals bucking in unison to a prodigious height from the ground. All the 'sauteur' riding is done in the old 'selle française' without stirrups, the rider being wedged tightly in between two large rolls. The 'sauteurs' are remarkable for an enormous muscular development of the haunches and thighs, and seem to have no vicious tendencies, but buck and kick complaisantly with ears cocked.

On joining the school each pupil has two horses detailed for his sole riding. One of these is his 'cheval d'armes' and the other a horse partially trained ('cheval de dressage' or 'cheval de perfectionnement'). In addition to these he rides daily a 'cheval de carrière,' a 'cheval de manège,' and probably has a turn on a 'sauteur.' Stress is laid on the fact that, in addition to the pupil's own horse (his 'cheval d'armes') and his 'cheval de dressage,' he rides daily at least two horses which are new to him and changed according to a roster. He thus gets a considerable knowledge of different classes, a necessity for French officers, to whom as a whole the wider experiences of hunting and polo are an unopened book.

RECREATION

The Saumuriens believe with the late Mr. Gladstone that change of work is the best recreation, and most of them may be seen schooling a horse in the short hours of leisure. There is, truth to tell, not much else to be done. In winter, however, there are several packs of hounds within reach, and the nominal leave for one day's hunting a month is liberally extended. Pupils hunt their own horses or their 'chevaux d'armes.' There is no polo, but Paris, the sovereign remedy for *l'ennui*, lies but four hours distant, and there is a fast afternoon train.

It only remains to be added that all ranks appear to throw their hearts into their work with a devotion calculated to ensure success in any undertaking, while the courtesy and hospitality shown to foreign, and especially to English, officers visiting the school leaves nothing to be desired.

IRREGULAR TROOPS IN THE FIELD

By MAJOR-GENERAL E. C. BETHUNE, C.B.

‘ Ha ! Welche Lust Soldat zu sein ! ’

The advantages and disadvantages of irregular corps—The best methods of raising and equipping them—How to strengthen the moral and fighting qualities of such a corps—The value of such a corps as compared with regulars—The uses to which it may be put.

IN a country like England, or rather Greater Britain, which possesses a very small standing army and a very large percentage of men who, though excellent material for fighting purposes, have small experience of the military art, we shall always, under our present system, be more or less dependent on levies, raised after an outbreak of war, to bring up the ranks of our army to a number proportionate to the large standing armies of Europe. We are no longer a country surrounded by water, but, owing to our vast dependencies all over the world, our boundaries are co-terminous with many other countries, and *casus belli* might arise at any moment.

The question which I propose to consider in this article is : What value can we assign to an irregular corps, hurriedly raised and equipped and sent on service before it is able to get any experience or even to acquire discipline or cohesion ?

The advantages which an irregular corps possesses in a marked degree are : (i) The quality of the men, who, from the very fact that they have enlisted, have shown that they are of a brave and adventurous nature ; (ii) the high standard of intelligence throughout all ranks.

The disadvantages are the want of cohesion among the men and their lack of discipline.

I propose to divide my subject into three portions : (i) How

best to raise and equip an irregular corps ; (ii) When raised, how to strengthen its moral and fighting qualities ; (iii) What value has such a corps when compared with ' its opposite numbers ' in the regulars ?

HOW BEST TO RAISE AND EQUIP AN IRREGULAR CORPS

The proper *rôle* of the irregular is as a mounted man. It suits his character very much better than being an Infantry man, and in the mounted arm the want of cohesion and discipline which is apparent in every irregular corps—at all events at the beginning of a campaign—are of less consequence. As hastily formed artillery, men absolutely unacquainted with guns and drill would require a very great deal of practice in mobility and training before they could be in any way efficient.

When raising a corps of irregulars the first essential is to get a good commander, as well as a good second-in-command. The type of man who is of use in such a corps is probably a harum-scarum, happy-go-lucky, casual sort of person, whom it is very difficult to bend to discipline. The only way in which one can deal with such a character is by employing the personal element. In other words, the leader must be one of strong character, of great individuality, and possessed of the power of making himself obeyed by virtue of his own strength of will. The result of this is that the regiment tends to become a 'one-man show.' Take the leader away and, unless there is a second string very similar to him, the regiment is very liable to disintegrate. This tendency becomes less and less as the war continues, and if it lasts for any length of time, and given that a good system of discipline has been inculcated from the very start, the regiment will tend to assimilate itself more and more to a regular regiment. It has been said that war is like a game of chess, and to a certain extent it is. But there is this difference. In chess every piece on the board has its recognised value, and its moves are all laid down according to rule ; in war the value of each piece varies according to the spirit with which it is inspired at the time.

A commander who possesses the confidence of his men, and who has on his side fortune and skill, can infuse such a spirit into his troops that the value of each piece may be doubled. On the other hand, the incompetent commander may reduce the value of each piece until it is hardly able to crawl one square at a time. Again, as was shown in the late South African war, the versatile commander may vary the moves of his pieces, and even move a pawn right across the board and give check to the king as if it were a queen. He may be told that it is not according to the rules of the game, but if he does it and is successful, he may laugh at the objections of his adversary, for in this case, as in so many others, might is right.

Besides these two officers, an adjutant and one or two squadron leaders should, if possible, be chosen from regular regiments. As regards the other officers, I prefer personally to have them all drawn from a class, if practicable, superior to that of the rank-and-file. Such officers have the power of being on confidential terms with their men without being misunderstood. Being sure of their position they are not afraid of giving this away, and can be trusted under all circumstances to uphold the dignity of their rank. In any event, officers should not be elected by vote, since this has been proved by experience over and over again to be a most faulty system. In several of the Australian contingents during the Boer war the officers had been selected mainly on political grounds, and the efficiency of these corps as fighting units was thereby much impaired.

Of the N.C.O.s a certain proportion should be regulars, because without some such framework it would be almost impossible, within the limits of a campaign, to get a regiment into shape. I found in Africa that N.C.O.s serving in the regulars who were lent to my regiment were absolutely invaluable. As regards the remainder of the N.C.O.s, all of them should be appointed on probation, and none of them should be confirmed in the position until they have acted for such a time and in such a manner as to show their fitness for it. Irregulars

will always obey the man who knows his job, but have not the discipline to suffer fools gladly.

There will never be any difficulty in getting a sufficient number of men in an emergency to fill the ranks of an irregular corps, but great care should be taken to eliminate as soon as possible all the 'swashbucklers,' who merely join for the sake of what they can get out of it in the way of loot or opportunity for gambling. Such men will very soon show their hands. It is a curious fact that, for some reason or other, the old soldier does not make good material in the ranks of an irregular regiment. By an old soldier I mean a man who has been discharged from the army on completion of his term of service. From experience gained in South Africa during the Boer war of 1899-1902, I found that of about sixty old Cavalry soldiers, whom I gladly enlisted at Durban at the commencement, only a very small percentage remained after three months. They seemed to have brought with them all the old soldier's tricks, without any of the good qualities which are such a marked feature of the British soldier serving in the ranks. This, however, was probably due to the fact that the men who joined were not the best kind of old soldiers, but men who had been through their service without distinguishing themselves in any way, and were therefore not likely afterwards to be of much use.

Artificers, such as farriers, saddlers, &c., and trumpeters must of course be enlisted.

As regards transport, elaborate arrangements for second line transport and large supplies of ammunition would not, I think, be required for such troops. They would be the privateers of the war, and, owing to the fact that they would to a great extent be working over ground untouched by the regular army, the question of their supply should not be a difficult one. At the same time it is not safe to count on irregular corps subsisting entirely on the country; this was tried in one or two cases in South Africa and proved a lamentable failure. On the other hand, they should not be hampered by so much transport

as to interfere with their mobility. One of the main causes of Mischenko's failure to effect anything in his raid of January 1905 was the fact that he had with him 1,500 pack animals. Such a sad spectacle also as a mounted brigade supplied with ox transport or, worse still, with part ox and part mule transport, which was to be seen in South Africa during the late war, should not be allowed.

Should further irregular troops be required at a later stage in a campaign, it will probably be best to enlist men into the existing corps which have been embodied long enough to have *esprit de corps* and discipline, rather than to raise new regiments. During the war in South Africa many new regiments were raised at a late stage, when possibly it would have been better to have enlisted men into the existing irregular corps. This was perhaps due to political causes or to oblige influential men who wished to make a name for themselves as leaders of regiments. But I think that had the original regiments been strengthened up by the best men who enlisted in the newer corps their value as fighting units would have been very much increased, and it would not have been necessary to provide machinery and transport for corps which did not, with two or three notable exceptions, justify their existence as fighting units.

HOW TO STRENGTHEN THE MORAL AND FIGHTING QUALITIES OF THE CORPS

Once the men get confidence in their leaders, and the leaders in their commander, three-quarters of the work is done.

From the very beginning the very strictest discipline is necessary. The men should be taught that strict obedience to orders and prompt compliance with them in the field are not only necessary but constitute a very great source of strength, and their only chance of safety in a tight place.

A man of independent thought should be taught this first, and then his education should be still further extended by showing him where on occasions he should use his own judgment in unexpected crises. The type of man who joins an irregular

corps is perfectly willing to submit to any amount of hardship and discomfort, and to bend to any amount of discipline, however severe, provided that he thoroughly understands that what he is asked to do is necessary for efficiency and for the well-being and comfort of the regiment.

The difficulty with such a corps is to know when to allow a certain amount of licence and when to draw the rein tight. A very tight hand is required, combined with tact, judgment, and a knowledge of men.

The spirit of emulation between squadrons in horse management, smartness, and musketry should be fostered as much as possible, and every opportunity taken of improving the men's shooting. It must be remembered that some of them may never before have held a rifle in their hands, while others may be expert shots. Once a regimental spirit has been instilled into all ranks the greater part of the work is done, since new-comers who enlist to replace casualties will be absorbed into what we may call a 'going concern,' and will speedily take up the idea that they will have to do what the others do, and submit themselves to the necessary discipline.

To descend to details. Every man, whatever his position in civil life, should groom his own horse and clean his own arms and saddlery. The system of allowing men to get unpleasant work done for them for money is demoralising and subversive of discipline. This to my mind is a most important point, and one which should be carried out impartially. On the other hand, the request of friends to be put together in the same troop and section should be acceded to as far as possible.

Unstinted praise should be given when work is well done or after a good fight, but any cases of insubordination should be dealt with promptly and strongly.

WHAT IS THE VALUE OF SUCH A CORPS ?

Lastly we come to the most important point of all, viz. : What is the value of such a corps when raised as compared with a regular unit ?

In a large sphere of operations there will always be room for energetic action on the part of irregular regiments, and they will be able to establish a reign of uncertainty and apprehension within a large radius.

Though not of very much use for shock action, irregular regiments could, if used for raids or threatening lines of communications, for attacking detached posts, collecting supplies, cattle, horses, and such-like duties, and obtaining information, render extremely useful service. They are just the men to undertake such raids as Stuart carried out in the American War, and such action on their part would not have the same drawbacks which it had in that war, when, by moving on these extended raids, Stuart deprived the Southern Army for the time being of its much-needed Cavalry.

In any army such as ours, which is lamentably deficient in the Cavalry arm, irregular troops grouped in brigades and divisions should be able to render great service to their side. Our regular Cavalry, however fitted by its modern training to carry out duties which I have assigned above to the irregular corps, will find plenty to do in the fighting line which decides the main issues of the campaign, and irregular brigades can spare them arduous duties which, if carried out by the regular Cavalry, however efficiently, might end in their being short of horses when they were required for the actual Cavalry combat or to throw themselves into the main battle.

It must also be remembered that the value of such troops would not lie entirely in what they actually performed but in what they might perform. One or two well-planned and daringly carried-out raids by these troops would establish such a reputation for them with the enemy that their value would increase fourfold, since he would not know at what moment and at what place they might appear in force.

NIGHT OPERATIONS

BY LIEUT.-COLONEL J. VAUGHAN, D.S.O., 10th *Hussars*

The preliminary individual training necessary for night operations—The necessity for accurate observation—Preliminary Squadron training—Description of the various schemes—General regulations observed during the schemes—Despatch riding, signalling and supply.

IN a former article published in the CAVALRY JOURNAL, April 1908, attention was called to some of the difficulties experienced in night operations in war or at manœuvres, and suggestions were made as to the best methods of dealing with them. In the present article the training of troops for night work will be considered.

During the hot-weather training of 1905 and 1906 considerable attention was paid to the subject of Night Operations by the 10th Hussars, who were then at Mhow, and it is hoped that the following description of their methods and experiences may help other regiments to develop their own ideas.

PRELIMINARY INDIVIDUAL TRAINING

Training for night work is of course arduous, but in no other branch of training does improvement manifest itself so soon. A little preliminary instruction by Squadron Commanders of their troop and section leaders, scouts, and despatch riders is required in order that officers and men may tell quickly from the stars the points of the compass, may become accurate map-readers, and may develop good map-memories. In Northern latitudes

a man should be able to recognise the Pole Star, and in Southern latitudes the Southern Cross. He should also know the lie of the country and be informed of the time of the moon's rising and setting. In addition to this he must learn to make mental notes of directions, distances, and land-marks, dividing his route into stages.

THE NECESSITY FOR ACCURATE OBSERVATION

The importance of extreme accuracy of observation and memory is illustrated by the following incident :

A Khaki Force was pursuing a White Force. Khaki patrols located White's bivouac. O.C. Khaki determined to make a day-break attack. He made a note that his route lay ' N.W. to a tank and thence turned left handed from N.W. to W. along a road.' This observation would have been sufficient for day work, but not so for night work. The note should have been : ' March N.W. to *E. end of the tank embankment* and thence turn left handed from N.W. to W., along a road.' It was clear from the map that there was a bad nullah running W. of the embankment, and the enemy's bivouac had therefore to be turned by the East. At night he hit off the tank, but could not remember whether to leave the embankment on his right or left. The stone embankment was some 800 yards long, and accordingly some time was lost in an endeavour to find a way either over or round it, and a match was struck so that the map might be inspected. Eventually, on reaching the road, since there were still some five miles to cover, the pace was increased to a trot and the force arrived at the enemy's bivouac as the day began to dawn. The O.C. Khaki had no sooner ordered a deployment than he found himself charged from his left flank and rear by the White Force. An unfordable river on his front prevented his escape, and he was fairly overwhelmed.

A patrol from the White outposts had in fact seen the light of the match, while O.C. White had heard the Khaki troops

trotting for no less than twenty minutes, *i.e.* $2\frac{2}{3}$ miles. He had therefore roused his troops and prepared to receive the attack.

PRELIMINARY SQUADRON TRAINING

For preliminary practice in night operations parties were first sent out from barracks by daylight and returned by night. Subsequently they marched at night by map from one point to another without previous reconnaissance. It was found that after men had lost themselves once or twice they soon learnt the accuracy of observation and memory which is necessary for night work.

As soon as Squadron leaders were satisfied with their men's capabilities, more ambitious schemes were carried out under regimental arrangements.

REGIMENTAL SCHEMES

Throughout these operations there was only one 'General Idea,' the 'Special Ideas,' which were issued weekly, or as often as the operations took place, being simply successive phases in the same campaign.

The General Idea was :

War of North *v.* South.—Frontier, the river Nerbudda. Mhow is an entrenched camp of North, whose armies are mobilising at Gwalior and Neemuch (*see map*, p. 322).

South, being more prepared, invades by two lines the Khandwa-Simrol and the Nassick-Mhow Government Roads.

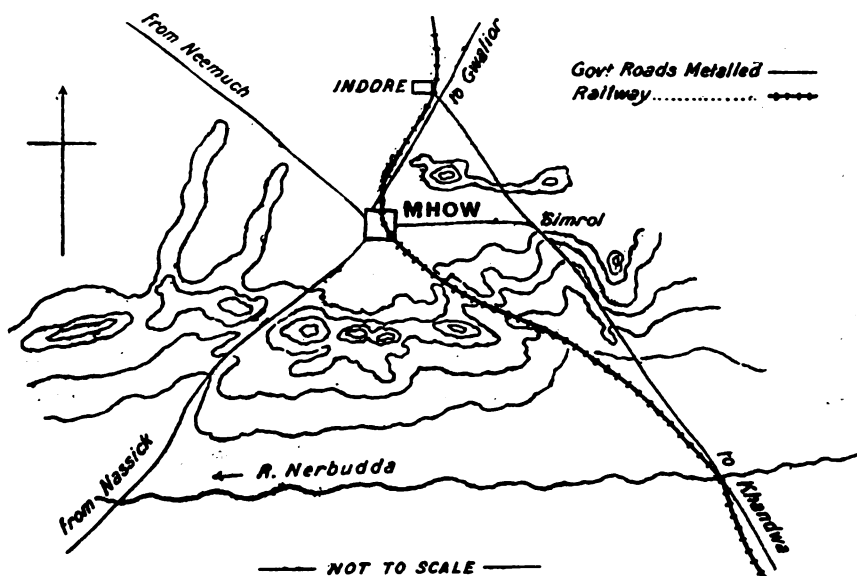
North leaves Mhow to be held by its actual garrison, one Cavalry regiment, one brigade Royal Horse Artillery, three battalions Infantry and Departmental Corps, and retires on Neemuch to effect its concentration.

This General Idea had the advantage of allowing possible combinations of from two to five forces.

The following are some of the schemes which were set :—

- (1) *Exercises*.—North. Night outposts, strengthening bivouac, escorting convoy. Force employed : one squadron.
 „ South. Strategical patrols, contact squadron, intercepting enemy. Force employed : one squadron.

South's strategical patrols, approaching from Nassick, discovered a hostile camp about midnight near the Neemuch Road, some twelve miles N.W. of Mhow.



A contact squadron in support of these patrols bivouacked near the Nassick Road.

The patrols from North's outposts did not discover the Southern hostile squadron, but encountered one of its patrols.

At daybreak the Northern Force marched into Mhow escorting a convoy of ammunition. The Southern patrols observed and reported the movement, but the contact squadron, although ordered by its Headquarters to do so, was unable to intercept the convoy.

- (2) *Exercises*.—South gaining and keeping touch with its own forces in hilly country.
- „ North intercepting communication. Forces employed: officers, scouts and despatch riders only.

The advanced parties of Southern troops gain the Northern edge of the Ghats on both lines of advance, and endeavour to get into touch with one another.

Patrols from Mhow are sent out to report their movements and if possible prevent the intercommunication.

- (3) *Exercises*.—South. Raiding hostile L. of C. Destruction of railway. Force employed: one squadron.
- „ North. Covering a length of railway with a weak Cavalry force. Force employed: one squadron, another half-squadron joining at daybreak.

A Southern squadron near Simrol was ordered to destroy the railway between Mhow and Indore as a preliminary to investment.

A Northern squadron was sent out to cover this section of the line from the East.

This problem worked out well. Each force located the other during the night and observed its movements.

- (4) *Exercises*.—South. Outpost line of Cavalry in an investment. Force employed: two squadrons.
- „ North. Breaking through enemy's outposts. Force employed: one squadron.

Two Southern squadrons held a line of outposts between the Neemuch and Gwalior Roads, investing Mhow.

A squadron of the garrison was ordered to break through and join the Northern forces towards Neemuch or Gwalior, since there was insufficient forage in Mhow and the Commander

preferred to keep a small force of fit horses rather than a large force of starved ones.

Some very good work was done in this scheme. The Commander of the Northern squadron before he marched at midnight obtained accurate information of the position of the enemy's outposts.

(5) *Exercises*.—As in Scheme 4, but on section of investment between Simrol and Indore Roads. The rôles of the various squadrons were the reverse of what they had been in the previous exercise. Four squadrons employed.

The situation developed as the advance of the relieving forces from Gwalior and Neemuch became felt, the investing squadrons having the double duty of investing the enemy in Mhow and of watching and reporting any movements of a relieving force from the North.

There were in all about twelve schemes on this 'General Idea,' but sufficient has been written to show the principles on which the schemes were worked.

MAIN AIM OF THE SCHEMES

The aim of the schemes was to give a maximum of scouting with a minimum of fighting. It was so arranged that neither side knew the strength of the other, which might vary from a few scouts to a regiment and some Royal Horse Artillery, since both Infantry and Horse Artillery were, whenever desired, placed at the disposal of the Regimental Commander. Squadron Commanders often acted as umpires, leaving subalterns to command their squadrons.

GENERAL DIRECTIONS FOR THE CONDUCT OF SCHEMES

Umpires carried white arm-bands for casualties, which they issued to officers, N.C.O.s, and men as they thought fit. Those who were thus indicated had to lead their horses from the

conflict, subsequently ride home at a given rate, and, in order that their pace might be checked, report themselves at the Regimental Guard Room.

The operations usually commenced at sunset and were stopped as soon as the troops came into actual contact, generally about 7 A.M.

It was found that a convenient distance for the opposing bodies to be separated at the beginning of the operations was from six to twelve miles. If nearer, the distance was insufficient to test the scouting and reporting; if further, it did not allow sufficient time for the scouts to locate the enemy and report, and for the Commander to carry out his plan under cover of darkness.

As a rule parties used to leave barracks about 4 P.M. on Tuesdays and reach their rendezvous before sunset. They were always back in barracks by 8 or 9 A.M. Wednesdays.

The night of Tuesday-Wednesday was selected because, Thursday being a holiday, the horses and men could rest after their exertions. The Veterinary officers were inclined to think the work too hard for horses in the hot weather, but as a matter of fact the quiet night work did them no harm; and in any case the reason of keeping Cavalry horses in peace is surely for the purpose of training the men.

It should be noted, however, that the hot weather at Mhow is not really very hot, and the wisdom of so many night excursions at this season at other Indian Stations, excepting Bangalore, and possibly Secunderabad, is doubtful.

These weekly outings helped to make the hot weather slip by and everyone enjoyed them. Certainly there was great emulation and the greatest possible keenness to do well; consequently there was great progress, and all ranks acquired confidence in their ability to go anywhere in the dark.

MOVEMENTS BY LARGE BODIES

In training for night operations—as indeed in all other training—individual efficiency is the first object, and when troop and

section leaders feel confident that they can move about at night they soon teach the men, and everything comes easy.

Night training is a matter for squadron and troop leaders rather than for higher commanders. If, however, units have been properly trained, masses of Cavalry can, provided that the Staff Work is carefully done, easily be moved at night even in countries where roads are scarce or even non-existent.

DESPATCH RIDING

It was found at first that despatches often miscarried, but later the accuracy with which reports arrived at their destination was really surprising. As an example, it may be mentioned that two despatches, which were carried by relays of despatch riders round a pentagonal route, in reverse directions, for a distance of 120 miles, arrived at their destinations within three-quarters of an hour of one another. This is the more wonderful in that the country was difficult: there were no metalled roads, practically no landmarks, and the moon was of little assistance.

SIGNALLING

No reference has been made to signalling, as the signallers were not always taken out, the intention being to exercise the despatch riders as much as possible. When, however, the signallers were used, they obtained good practice in choosing stations so that their messages could not be easily read by the enemy, a point in which further practice is often required.

SUPPLY

As regards supply, leaders were able to indent for whatever transport they required, and made their own arrangements as soon as the Special Ideas were issued to them. As a rule they took out two feeds for the horses, which they supplemented with grass, etc., from the villages, and 'chota hazri,' as well as cheese and biscuits or meat pies and soda-water for the men, there being no object in not feeding both horses and men as well as possible.

*THE PROVISION OF HORSES FOR THE
ARMY IN WAR*

BY COLONEL W. H. BIRKBECK, C.B., C.M.G.

The shortage of horses for war—Steps taken by France and Germany to meet the demand which a great war would entail—The numbers required in similar circumstances by Great Britain—The inadequacy of the present supply—Suggested means of meeting the demand—The military efficiency of the nation largely dependent on the successful solution of this question.

THE British nation appears to be awakening to the fact, which has for long been weighing on the minds of soldiers, that all is not well with our supply of horses for war.

We are not the first people to be confronted with this problem, and it is both valuable and interesting to consider what steps have been taken in similar circumstances by statesmen, no less able than our own, to arrest the decay of the equine race, or to foster the production of the stamp of horse required for Army use.

The shortage of horses has usually come into greater prominence after a great war, as is shown by the reorganisation of the French studs in 1806 and 1874, and by the acceptance at the beginning of the last century by the Prussian Government of the burden of State horse-breeding establishments; and though in our own case the depletion of the national stable is attributable to the advent of the motor-car rather than to the ravages of war, still the need is the same, and the remedy is identical.

First let it be distinctly stated that although all the armed nations of Europe spend large sums of money on horse-breeding, avowedly with a view to Army requirements, yet in no case does

the money come from Army Funds, nor is the War Office held to be responsible for this purely agricultural matter.

The fact is that to 'Nations in Arms' the menace of war is a constant reality, and all their national assets—commerce, agriculture, education, and so forth—are freely at the disposal of the State, to be directed towards the great common end of national security, the bedrock foundation upon which alone prosperity can firmly rest; for our neighbours realise that, in spite of all the Peace Conferences in Europe, it is still the strong man armed that keeps his city, and that war is still, and always will be, the final court of national arbitration.

France, the most democratic of our Continental neighbours, has been particularly successful in her horse-breeding policy, which, while always keeping in view the requirements of the Army, has not neglected the needs of the civil population.

A French writer, Baron de Bohan, has laid it down that 'fashionable luxury is indispensable as an encouragement to the producer and to the trade,' and it is to the fashionable demand for high-class horses that the constant improvement of the French remount is due.

In Germany, on the other hand, the Government has bred for Army requirements alone, and has ignored the civil demand, with the result that though they have enough remounts and to spare, still over 100,000 animals are annually imported into the country, the majority of which are heavy draught horses for agricultural purposes.

The first trace of State influence in French breeding is a Memorandum dated 1639, which bears this significant title: 'Memorandum regarding the establishment of breeding studs in France for the purpose of preventing the expenditure of gold and silver now sent out of the kingdom for horses brought into France,' and in that year, 1639, Louis XIII. organised studs at the public expense. The result was a complete failure, and the studs died out; but twenty-six years later Colbert—Louis XIV.'s great Statesman—took up the idea again, and a Decree

in Council, dated December 17, 1665, created public breeding establishments, allotting stallions for gratuitous service and conceding special privileges to those in whose care they were placed.

Two subsequent decrees repressing promiscuous mating ensured the success of the system.

Colbert imported both stallions and brood mares from Barbary, Spain, Naples, several of the German States, and England, and things went well until the wastage of Louis XIV.'s wars, both equine and financial, again gave breeding a set-back, and when the King died there was not much left in France in the way of horseflesh.

The Regency during Louis XV.'s minority again took the matter up, and from 1717 until the Revolution the following system prevailed :—

There were three studs—at Rosières, in Somme; at Pompadour, close to Paris; and at Le Pin, in Orne. At these three studs were special brood mares and stallions that served them, and also stallions which stood for public service at various centres in the neighbourhood.

There were, further, three classes of stallions outside these studs :—

(a) The Royal stallions, which were placed under the care of privileged landowners ;

(b) Provincial stallions, purchased by provincial governments and granted to private persons, and

(c) Approved stallions, private property, approved by the King.

In 1779 the total number of stallions was 8,239, divided as follows :—

Stallions kept by the State in its three studs	365
Royal and provincial stallions	750
Approved stallions	2,124

Each stallion might serve thirty-five mares, and thus we arrive at 113,000 mares covered annually by these horses.

The Revolution wiped it all out, and though under the Republic more than one attempt was made to re-introduce the system, it was not till 1806 that Napoleon took effective steps, and decreed the creation of six studs, thirty stallion centres, and three experimental schools, with a total of 1,500–1,800 stallions, some of which were collected from the remnants of the old establishments, and many Eastern horses which he had brought from Syria and Egypt.

Thanks to this effort France was able to meet the heavy drafts of the last years of the Empire, till the almost total destruction of the Cavalry of the Grand Army in Russia in 1812 again reduced her equine resources to vanishing-point.

Under the Bourbons and the Second Empire Napoleon's system continued with varying fortune, the great step being the establishment of the Stud School at Le Pin in 1841; and finally, in 1874, after the Franco-Prussian War, the 'Loi Organique des Haras' was passed, which established the system which now provides the French Army and the French nation with horses of a quality surpassed by those of no other country.

France is divided for horse-breeding purposes into six districts, each presided over by an inspector and staff.

There is a brood-mare stable at Pompadour, where alone horses are actually bred by the Government. There are twenty-two stallion dépôts, of which the chief is the Haras du Pin, where is the Stud School, and in these dépôts are some 2,500 stallions.

The breeding policy is based upon a foundation of zones:—

(a) In the northern zone heavy draught horses are specially to be found.

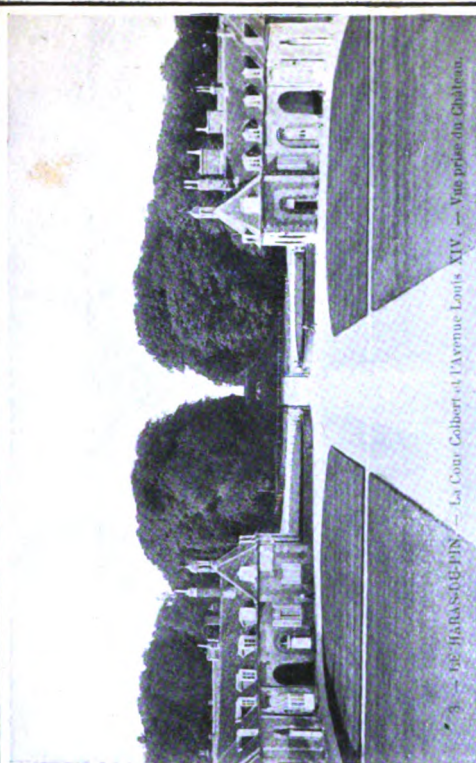
(b) The zone of the centre and west supplies light draught and carriage horses and ride-and-drive horses; and

(c) In the zone of the south only light horses specially suited for saddle work are bred.

This is the broad division, and, however numerous may be the varieties of breed in each zone, they fall within the general classification—heavy in the north, medium in the centre, and



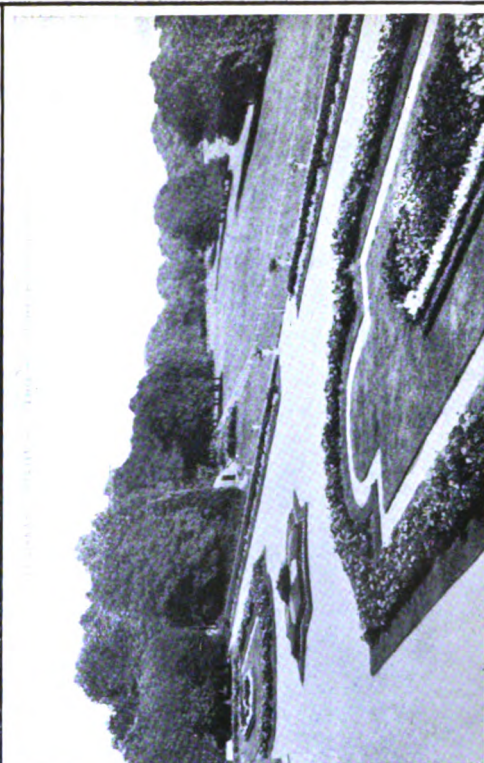
Le Haras du PIN. — Le Chateau, vue sur le Parc.



3. — LE HARAS DU PIN. — La Cour Colbert et l'Avenue Louis XIV. — Vue prise du Chateau.



LE PIN-AUX-HARAS (Somme). — Le Chateau de Haras.



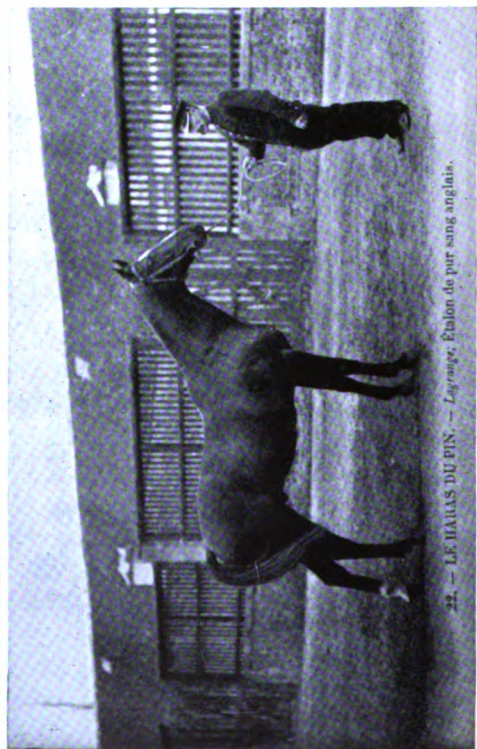
4. — LE HARAS DU PIN. — Vue prise du Chateau.



41 — LE HARAS-DU-PIN. — "Clamart", Etalon pur-sang anglais.



Le Haras du Pin. — "Fouette", Etalon de pur sang anglais.



42 — LE HARAS DU PIN. — "Lacoste", Etalon de pur sang anglais.



Le Haras du Pin-Vincennes etalon de pur sang anglais.

light in the south; and it is on this principle that the French studs are worked.

In the northern zone heavy draught and half-bred horses alone are encouraged.

In the central zone half-bred horses of a distinctly higher class are aimed at, and no heavy draught horses are bred.

In the southern zone the Anglo-Arab alone is encouraged, and the use of draught-horse stallions is totally forbidden.

In addition to the 2,500 national stallions which are the mainspring of the system, there are three other methods of State encouragement and guidance :—

(1) Approved, authorised, and accepted stallions.

Approved stallions are divided into classes :—

(a) Sires whose fee is over £4; these get no premium.

(b) Sires whose fee does not exceed £4; these receive premiums: Thoroughbreds £30 to £80, half-breds £30 to £40, heavy draught £12 to £20. The premium is increased or diminished according to the value of the sire's progeny.

Authorised stallions are those whose value does not warrant their receiving a premium, but induces the authorities to give them a formal certificate of excellence.

Accepted stallions are those which are free from hereditary defects, and that is all that can be said of them.

Without this certificate no stallion can stand for public service.

(2) Premiums for brood mares, for filly foals, and for horse-breaking, awarded at public competitions. The object is to keep good brood mares and filly foals in the country, and the shows further afford an opportunity of gauging the general and comparative improvement of the stock.

Another system which has been much advocated is that of giving brood mares a *permanent premium*, to be renewed every year, and increased or diminished according to the condition of the mare herself and the value of her progeny. The advantages claimed are that the breeder would have to take no chances: that

he would know definitely what each brood mare will bring him in, and would be able to make his arrangements accordingly, and, further, that the great shows which arise out of the present competitions would cease, and with them the great opportunity offered to foreign buyers.

Horse-breaking competitions are limited to geldings and mares four and five years old, to be shown either in saddle or harness.

(3) The third method is giving prizes at race meetings, both on the flat and trotting, and this State intervention is seconded by departmental, municipal, and private liberality.

All the above is purely and solely the business of the Agricultural Department, and the War Office has nothing to do with it.

The only responsibility that lies with the War Minister is the annual allotment of a reasonably liberal sum for horse purchase, and the establishment of a Remount Department, which shall ensure that the money is spent in France, and that it goes straight into the pockets of the farmers without the intervention of a middleman.

A detailed description of the French Remount system will be found in the CAVALRY JOURNAL of January 1907; the gist of it is briefly as follows:—

Remount Depôts are established in the breeding districts, which form purchasing centres where remounts are bought direct from the surrounding farmers under a legal guarantee of soundness, and from which emanate the purchasing commissions that tour the outlying districts.

The relations between remount officers and breeders are thus very close indeed; the former become intimately acquainted with the equine resources of their districts and can judge the effect of the Horse-Breeding Department's policy, their views being represented upon the joint council of the Horse-Breeding and Remount Department officials, which meets in Paris under the presidency of the Agricultural Minister, and includes as additional members some of the most prominent civilian sportsmen and breeders.

LE HARAS DU PIN.

Photographs by E. Roussel, Argentinean.



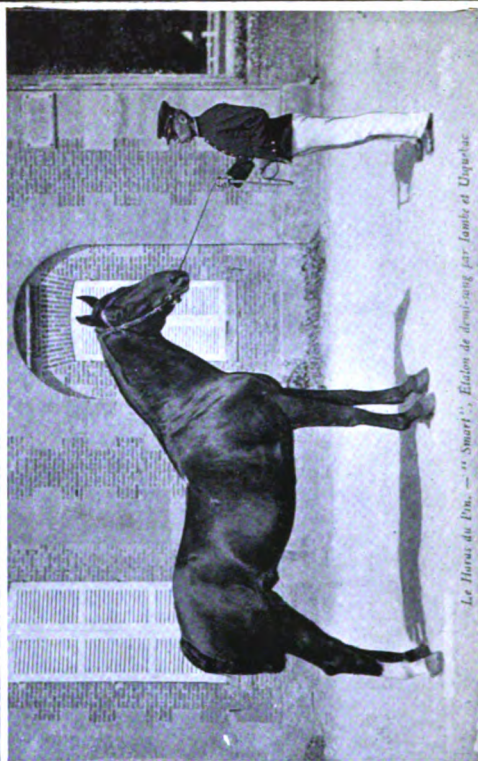
Le Haras du Pin. — "Pommanoir", Etalon de demi-sang par Narquois-Corseille et James Watt.



Le Haras du Pin. — "Agar", Etalon de demi-sang par Jockey et Pistance.



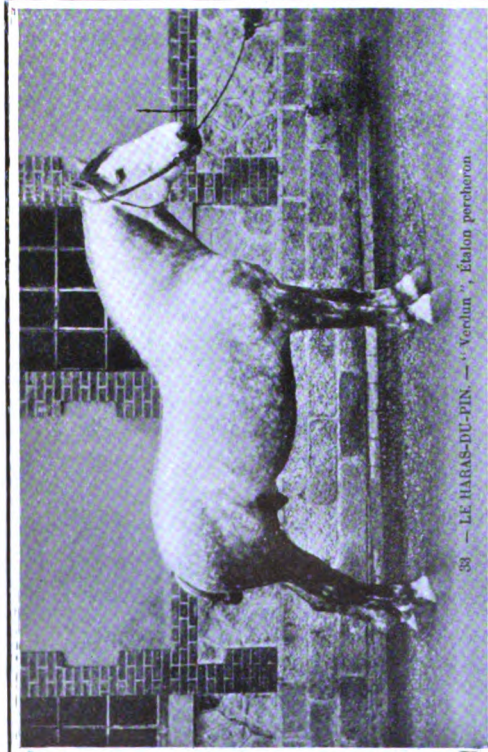
Le Haras du Pin. — "Trot-Lo", Etalon de demi-sang par James Watt et Clerkbury.



Le Haras du Pin. — "Smart", Etalon de demi-sang par Jamie et Uquibar.

LE HARAS DU PIN.

Photographs by E. Roussel, Argentan.



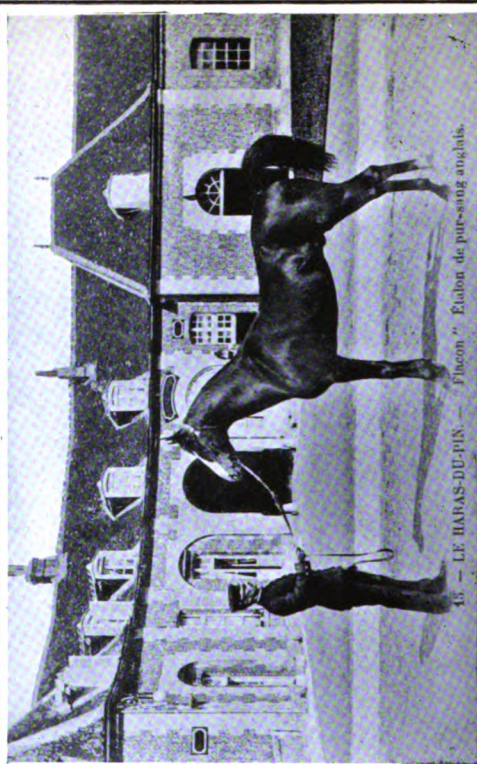
33 — LE HARAS-DU-PIN. — "Verdun", Étalon percheron.



LE HARAS DU PIN. "Triton", — Étalon Percheron.



Le Haras du Pin. — Étalons Percherons.



45 — LE HARAS-DU-PIN. — "Falcon", Étalon de pur-sang anglais.

Every care is taken that the best saddle mares shall give the State foals before and after their service in the ranks ; thus young mare remounts are purchased at three years old and left with their former owner to breed him two foals before they join their regiments, and mares cast before the age of fourteen and suitable for breeding are sent back to the *depôt* that bought them, to be offered to their breeder or sold at a closed auction of approved farmers.

Remounts cost from £30 to £40 and are bought in the autumn of their fourth year—*i.e.* three and a half years old—thus saving the farmer the expense of the fourth winter's keep and the risk of breaking ; they are kept on Government farms or boarded out with farmers for two years, and join their regiments at five and a half years, having cost in cash some £60 to £70, besides cost of departmental administration.

This seems to be an expensive system ; but agriculture benefits, the money stays in the country, and when war comes France has plenty of horses and need not scatter money all over the world in search of them.

The French Army requires 15,000 horses yearly, *i.e.* 10 per cent. on its peace strength, and on mobilisation probably 100,000 more.

Germany's military needs are still greater. Her Army took 250,000 horses into France in 1870, and it is estimated that, including second line of Territorial Troops, the German Forces mobilised would now include over 500,000 horses ; yet they have plenty and of the stamp the Army wants.

Broadly, German arrangements are similar to those of France.

There are two classes of Government Equine Establishments :—

(a) Under the Minister for Agriculture :

Chief Studs (*Haupt-(or Stamm-) Gestüte*).

District Studs (*Land-Gestüte*).

(b) Under the War Minister :

Remount *Depôts*.

At the 'Chief Studs' are special brood mares and the stallions that serve them, and they are designed to breed stallions to keep up the establishments of the District Studs.

The District Studs are Stallion Dépôts, where sires are kept to serve the mares of the breeders of the district which they travel.

At the Remount Dépôts are kept for one year all remounts which are bought for the Army at three years old.

Of the German States, Prussia takes the lead with five Chief Studs, eighteen District Studs, eighteen Remount Dépôts, and five Remount Purchasing Commissions.

The five Chief Studs contained (in 1904) thirty-three stallions, 740 brood mares, and 2,289 young stock colts and fillies.

The eighteen District Studs, or Stallion Dépôts, contained 8,105 stallions, 180 being the smallest and 270 the largest stud.

The eighteen Remount Dépôts contained 8,600 Army Remounts.

Bavaria has two Chief Studs (12 stallions and 110 brood mares), five District Studs (94 stallions), and four Remount Dépôts (2,160 horses).

Saxony has one District Stud (94 stallions) and two Remount Dépôts (800 horses).

The other States have little equine importance.

So much for Continental methods: their success is undoubted, and the question is how their principles can best be applied to meet the peculiar requirements of the free and enlightened people of the British Isles, whose preference for private enterprise rather than Government direction is largely justified by the successful, though haphazard, development of the great Empire of which they form the centre.

The question resolves itself into two main divisions :—

- (a) The end in view ;
- (b) The means to attain that end ;

and two great Departments of the State are concerned—the Agricultural Department and the War Department.

It is for the latter to define the end, and for the former to find the means.

The object, from the military point of view, is to ensure that there are sufficient horses in the country suitable for Army purposes, to mobilise (*i.e.* to place on a war footing) the armed forces of the nation, both first and second line.

The Remount Staff have no difficulty in getting in peace the insignificant number of horses they want, about 2,700 annually. This demand, of which half is for riding horses, is not great enough to create a special supply; nobody breeds troop horses, and the Army gets good enough animals, which have probably just missed the mark for which their breeders designed them.

But when it comes to war the Army wants roundly 174,000, of which 60,000 are riding horses, for mobilisation alone, and, including the probable wastage of the first year, the numbers required are estimated at 332,000, of which 180,000 would be riding horses.

It is this difference between the regular demand of 2,700 and the extraordinary demand of 332,000 for which the Agricultural Department has to make provision, and that can only be done by ensuring that *the horse in general use throughout the country is of a type suitable for military requirements.*

Beyond laying down the type of animal it requires, the War Department can do little to help; it can possibly reduce its demands for draught horses by a freer use of mechanical traction for its second line transport and ammunition columns, and for riding horses by keeping Cavalry Regiments at war strength of matured horses *exclusive of those untrained*; and it can help possibly in creating the supply

(a) By buying remounts at three and a half years.

(b) By following the French lead in utilising its young and old mares for breeding, in a liberal spirit and without any galling restrictions.

The type of horse the Army wants for war is that which can do most work, and keep on doing it under adverse conditions and often with scanty food ; and that surely is also the type best suited for the general utility purposes of civilian life, and which the Agricultural Department ought in any case to aim at producing.

There was no more striking feature of our Remount experiences in South Africa than the demand by all classes of mounted troops for small horses.

The Report of the Assistant Inspector of Remounts in South Africa says : ' It has been extraordinary how the value placed on the small horse or pony has increased as the war went on, till at the end even the heaviest man preferred to ride ponies which in England would be considered fit only for a child. That South Africa is generally a dry country, and that you are always "on the top of the ground," undoubtedly increases the carrying power of these little rats ; but it is to be hoped that the lesson will not be forgotten, and that the size of war horses will not be increased in peace time to dimensions which only a peace ration can support.'

The English weight-carrying hunter meets the demand of fashionable luxury for a big, striding horse with scope to negotiate large obstacles and to do it at the outside three days a fortnight with the best of care and all the food he wants ; but in war the care and the food are often lacking, and the Army will be content with a smaller, hardier beast that will keep his condition and carry the Army weight under privation and hardship, though he hasn't the stride and scope.

The ideal Cavalry troop horse approximates more to the well-bred weight-carrying polo pony than to the heavy-weight Leicestershire hunter, and this, too, is surely the most profitable animal to keep for general utility purposes.

For Army draught there is nothing better than the 'bus horse of the end of the last century.

It may be advocated that animals of Army stamp are available

in large numbers in Canada and North America, and can be reared there cheaper than at home. Possibly they are, but such horses are not immediately available for war: it is no use sending into the field animals, even of mature age, whose muscles are undeveloped and whose bellies are full of grass.

Practically unbroken horses bought off the prairie, however good the stamp, are useless for six months: the confinement and change of diet on board ship interferes with their condition, and it takes time after landing to train them and develop their muscles.

For immediate use in the field the Army wants *horses in work*, with muscles hardened, and accustomed to concentrated foods, and a stout cob out of a butcher's cart or a hansom cab is better value than any horse off the prairie unless he has been in hard work.

There are more horses in work in the British Isles, with its population of forty millions, than there are in Canada with its ten millions, and therefore the first supply must come from the British Isles.

It is obviously impossible for a Government to keep in its own hand, in peace, all the horses it will want for war; the supply must come from those in daily work throughout the land, and it is the business of the State to ensure that they are of a stamp suitable for Army needs, *i.e.* for hard work on short commons, and therefore the most suitable for the purposes of daily life too.

For the first supply, then, at any rate, *i.e.* for mobilisation of first and second lines, horses must be forthcoming in the United Kingdom; to meet wastage it may be possible to draw on Canada.

In the case of Cavalry horses, the peace establishment ought to be greater than the war strength, though for Artillery and Transport it is unnecessary, for there is obviously less difference between civil and military draught horses than there is between civil and military riding horses.

The basis of Cavalry efficiency is the individual training of the man and horse, and to fill up Cavalry regiments on mobilisation with horses untrained to the work largely reduces their value as fighting units.

The war strength of a Cavalry regiment being 500 horses, it should in peace have 525 horses between the ages of 6 and 15, 55 between the ages of $4\frac{1}{2}$ and 6, *i.e.* remounts under training, and 55 between the ages of $3\frac{1}{2}$ and $4\frac{1}{2}$, *i.e.* remounts at grass—total 635.

The youngest class of remount should be boarded out on farms near the stations where Cavalry regiments are quartered, under the supervision of the regimental authorities, the young mares bought rising three being left with their breeders as in France.

The end being thus clearly defined by the War Department, it rests with the Agricultural Department to find the means, and without interfering with private enterprise to place at the disposal of the breeder the machinery for breeding the horse wanted, to encourage him to make use of it, and to keep the result in the country.

The only official directing body charged with the supervision of the home breeding policy in England is the Royal Commission on Horse Breeding, appointed in 1887 to consider how public money could best be spent in Great Britain 'for the purpose of encouraging the breed and maintenance of a race of sound horses.' The sum of £5,100 (formerly given to racing as 'Queen's Plates') is annually placed at the Commission's disposal, and is expended in premiums for thoroughbred stallions distributed throughout the country to serve mares at a two guinea fee. The number of stallions thus subsidised by the Government is 28, the premiums being £150. In Ireland the Department of Agriculture gives premiums to stallions, advances money both to local associations and to individuals for the purchase of approved stallions, and in conjunction with the Royal Dublin Society encourages breeding in many other ways.

Compared with the machinery provided by foreign Governments the above, however good as far as it goes, is absolute child's play.

It is true that the meagre assistance given by the State is supplemented by agricultural societies and many associations for the improvement of particular breeds of horses, which give premiums for stallions and prizes at their shows; in fact much that is done and for which funds are provided by Governments abroad is carried out in England by private enterprise.

But however excellent the work of all these societies and associations, they do not aim at producing a war horse, and to level up the general utility horse, and to ensure that the horse in general use is of a class fit for war, State aid, State legislation, and scientific direction on a scale never before contemplated in these islands is the only solution.

The first step to the scientific direction of a breeding policy is the establishment of a Stud school, where the officials who are to guide the work can first learn it.

The lords, and others, who now give their services to the Horse-breeding Commission would doubtless continue to give their advice to the Agricultural Minister as members of his Council, but for the actual administration of a large organisation, such as the Stud Department must become, paid officials trained to the work from the outset of their career are absolutely necessary.

A scheme has been suggested for the formation of a national stud of 12,000 brood mares, let out to farmers at £2 per annum, under the conditions of the Brood Mare Society, but the mare reproduces herself possibly once in a year, while the sire multiplies many times, and therefore it is to the provision of stallions rather than mares that State funds should be devoted.

The measures are simple, *i.e.* :—

(a) The establishment of Stallion Depôts in those districts where horses are bred, to serve at a nominal fee. These Depôts must contain not 28 only, but several hundreds of stallions.

(b) Premiums for approved stallions privately owned, provided that they will serve mares at a reasonable sum.

(c) The compulsory registration of all stallions, and the elimination of those whose service is likely to be injurious to the breed.

In England the upkeep of a Brood Mare Stud for the production of sires to fill the Stallion Depôts is unnecessary ; there should be no difficulty in buying all that are wanted.

Encouragement to use Government stallions, if such is needed, can be given by prizes for the young stock at county shows, which further afford opportunities of judging the results of the Stud Department's policy.

Good mares must at all costs be kept in the country by premiums or by an export tax.

There remains, further, to find a profitable market for the produce, for without such a market the farmer naturally will not breed.

The Remount Department's annual requirements are too insignificant to count for much, though the purchase of three-year-olds will certainly help ; it is to the fashionable and general market that the breeder must look, and this depends largely upon the encouragement of equestrian sport and the discouragement of the motor car *de luxe*.

We owe the excellence of our saddle horses to hunting and polo, and to the fact that our country gentlemen live on their land rather than in the towns.

Legislation for the encouragement of fox-hunting may appear an anachronism in these democratic days, but a Bill, say, for the abolition of wire in fences, would help the hunts and so the saddle horse market, and a heavy tax on motor cars, cabs and 'buses included, would similarly aid the sale of hacks and harness horses, which are none the worse for a riding shoulder.

Finally there is the question of funds, which, under party Government, are hard to get except for the vote-catching schemes of so-called social reform.

Racing has ceased to fulfil the purpose for which it was formerly subsidised by the State, *i.e.* the encouragement of a stout breed of horse, and the success of flat-race meetings now depends on the number of short races provided for the public to bet on.

In France this taste for gambling provides, through the *pari-mutuel*, a great part of the money spent by the Stud Department, and thus racing still fulfils its original object.

Why should England not follow this lead?

To sum up.

We want 300,000 horses to mobilise our Army, and they must be suitable horses in working condition.

The only way to get them is to ensure that the horse in general use in the country is suitable for Army work. This cannot be done by private enterprise, and therefore the State must step in and direct the horse-breeding policy of the country by establishing a Stud Department whose officials are trained at a Stud School.

This Stud Department will administer Stallion Depôts, distribute premiums, and register stallions.

Good mares must be kept in the country.

The market for saddle horses must be kept up by the encouragement of equestrian sports, and the discouragement of motor cars, cabs, and 'buses.

Funds can be largely found by taxes on motor cars and by the adoption at race courses of the *pari-mutuel* or totalisator, of the profits of which the State should draw a percentage.

The motor industry would certainly suffer, but what good is the prosperity of the motor, or of any other industry, unless it is all based on the firm foundation of national security?

The Royal Commission on Horse Breeding has recently issued its twelfth report, wherein it indulges in a useful retrospect. In its first report of 1887 it pointed out the deterioration of English breeds, owing to the export of the best stock; this deterioration has steadily increased, and the baneful effects of

motor traction must now be added to the export evil. The needs of the Army for war have been clearly represented, and it is equally clear from the Commission's report that there are no present means of meeting them satisfactorily, and that even the present means, such as they are, will speedily vanish.

The philosophy of war knows no middle course between success and disaster ; either the Army is to be properly mounted or it is not ; if it is not properly mounted, it will not be efficient, and it will not win battles ; and if the Army is not intended to win battles, it is surely a useless expense to the nation to keep it up at all.

PETAWAWA CAMP, 1907.

BY LIEUT.-COLONEL VICTOR A. S. WILLIAMS, A.D.C.,
Inspector of Cavalry, Canadian Forces.

Description of the camp—March of 300 miles by 'A' Squadron of the Royal Canadian Dragoons—Troops present in camp—Work of the mounted troops—Their daily routine—Report by Major-General P. H. N. Lake, C.B., C.M.G.

PETAWAWA is a thinly-populated township in Eastern Ontario, not far from Algonquin Park, the national game-preserve. It has given its name, with a slight variation in spelling, to a railway station on the Canadian Pacific, and henceforth it will be associated in men's minds with military training and manœuvres.

Situated on a high plateau, near the meeting of the Ottawa and Petawawa rivers, a semi-permanent camp is rapidly approaching completion. Looking across the broad island-dotted Ottawa, out towards the Laurentians on the Quebec side, the view is very fine. The air is pure; the soil sandy and well drained; the water-supply good and plentiful. Close at hand there are artillery and rifle ranges; while away to the north-west stretches a vast tract of country of little value to the agriculturist, but admirably adapted for the field training of all arms.

Pembroke, the nearest town, is ten or a dozen miles away; and, when blood is young, custom is apt to stale the charms of nature's solitudes. Special efforts are therefore made to render life in camp as little irksome as possible; and to the attractions which have already been provided it is in contemplation to add a theatre, a polo-ground, an officers' shooting and fishing club, and, perhaps, a neat row of summer cottages for those who have contracted matrimonial obligations.

For two or three years past the Canadian Artillery (horse, field, and heavy) have performed their practices at Petawawa.

There also, for the first time, some of the rural battalions from Eastern Ontario were exercised last June ; and, later on, from July to August, the greater portion of the Permanent Force encamped, under the command of Brigadier-General W. D. Otter, C.B., A.D.C., for a course of combined training.

Of the Royal Canadian Dragoons 'A' Squadron (Major Nelles) arrived by train from St. Jean P.Q. ; but 'B' Squadron (Captain Van Straubenzee), from Toronto, came in by route march, 301 miles, gaining thereby valuable experience. Part of the country traversed was hilly, densely wooded, and practically uninhabited, while the roads were villainously bad. Some of the draught horses suffered ; but, with that exception, there were no serious mishaps. The march occupied sixteen days ; out of this there were two rest days, and the average march was therefore $21\frac{1}{2}$ miles per diem. The usual hours of marching were 4 A.M. and 6 A.M. to 12 noon and 3 P.M. The system of supply during the march was as follows : a Quartermaster-Sergeant and one man, with a pack horse, marched two days ahead and made arrangements at the various towns and villages for supplies of food and forage, giving an indent for quantity required, which was paid for in cash by O.C. Squadron. The cost of the march was approximately about \$800.

The Royal Canadian Horse Artillery also marched in—'A' Battery (Major Norman Leslie) from Kingston, 'B' Battery (Major Burstall) from Toronto. Both batteries put in good work on the ranges, and both of them could gallop ; but in the mind of the Cavalryman there lurks a suspicion—perhaps an unreasonable suspicion—that, as an outcome of scientific gunnery, the fire-action of Horse Artillery is becoming too deliberate in its methods.

The Canadian Field Artillery was also represented. The 6th 'London' Battery happened to arrive in camp while combined training was in progress, and, under Major Mills, took part in the proceedings. It is one of the best Field batteries in Canada.

Under the command of Major Poole, No. 8 Company, Royal Canadian Garrison Artillery, from Quebec Citadel, provided a

heavy battery of two well-horsed 4.7-inch guns. The driving was good. Many of the men, recently enlisted from the regular Army, had been trained as drivers while serving in the R.G.A.

The 2nd Fortress Company Royal Canadian Engineers, from various stations in the Provinces of Quebec and Ontario, trained under Captain French as a field company. Detailed, on one occasion to form part of the advanced guard of a convoy, a detachment from this unit cut a trail through a thick wood with astonishing rapidity.

The Royal Canadian Regiment (Lieut.-Colonel Wadmore commanding) produced eight of its ten companies—four from Halifax and one each from Fredericton, Quebec, Toronto, and London. The men were of fine physique, well-drilled, and steady under arms.

The administrative corps were also represented by detachments gathered in from distant quarters.

Beginning with squadron, battery, and company training (musketry included), the course of instruction was progressive, and, until the several arms began to work in combination, commanding officers were given a free hand. The tactical exercises were never unduly severe, and they were made as interesting as possible. A ceremonial parade and march-past brought the camp to a close.

One day was devoted to a practice in combined field firing, which took the following form:—

Having discovered the enemy in an entrenched position, the Cavalry opened fire and withdrew, clearing the front. Then after the position had been pounded by Horse and Heavy Artillery, the Infantry advanced under cover of adjacent woods and delivered an enveloping attack.

The exercise was difficult of execution owing to the intricate nature of the ground; but it was creditably performed, and it was of special value in that it enabled Cavalry and Infantry officers to observe, at close quarters, the bursting effects of shrapnel and lyddite.

Another interesting experience was provided when, during

a night attack on an outpost position, the defenders opened fire with star-shell from a battery of howitzers.

On the invitation of the Canadian Artillery Association, an English team of R.G.A. Volunteers visited the camp, and remained there some days. Their commandant, Lord Stradbroke, was much impressed with the excellence of the Artillery ranges. The Englishmen fired a couple of matches against a Canadian team of Militia Artillery, winning one and losing the other.

It was of great benefit to the Royal Canadian Dragoons to come together under their own regimental commander (Lieut.-Colonel Victor Williams, A.D.C.), and train on ground entirely new to them.

The regiment practised scouting, patrolling, and reconnoitring; screened movements, real and imaginary; carried out detached duties; bivouacked in the open; harassed convoys and protected them; took part in advanced and rear-guard actions; escorted Horse Artillery; woke up Infantry outposts; seized and defended bridges; conducted punitive expeditions, and hunted guerilla chieftains; fought as Irregular Cavalry, and raided communications; prepared ambushes, and occasionally fell into them.

Long distance rides and reconnaissance were carried out. The reports handed in by Officers and N.C. Officers were very good, and showed a good knowledge of the work which is required of them. Demolitions also of different descriptions were practised with success by the Cavalry.

The following is a specimen time table of a day's work:—

Daily Routine for Camp

	Weekdays	Sundays
Reveille (gun fire)	5.30 A.M.	6.30 A.M.
Sick parade	6.0	7.0
Morning stables and fatigues	6.0-7.0	6.45-7.45
Breakfast	7.30	8.0
Office hour	8.0	—
Drill	8.0-12 noon	Church parade 9.30 A.M.

	Weekdays	Sundays
Midday stables on return	Noon	—
Dinner	12.30 P.M.	—
Drill and lectures	2.0-4.0	—
Evening stables and fatigues	4.30	—
Tea	5.0	—
Guardmounting	7.0	—
Retreat	7.0	—
Tattoo { First Post.	9.30	—
{ Last Post	10.0	—
Lights out	10.15	—

On every alternate day the troops were out of camp for the whole day, and no drills or lectures were therefore given on those days.

An officer of the Indian Army, Lieut.-Colonel O. B. S. F. Shore, D.S.O., 18th Tiwana Lancers, was attached to the Camp Headquarters Staff. On questions connected with Cavalry leading his advice was eagerly sought. He rendered valuable assistance, and his presence was very welcome.

The Royal Canadian Dragoons were well mounted, and during the whole period of the camp there was practically no sickness among their horses. Great care was taken to save them as much as possible, with the result that few of them showed signs of over-work.

The forage ration was as follows :—

Oats, 12 lb.

Hay, 19 lb.

The following changes were made in this ration :—

Bran and crushed oats once a week, or as required.

On the line of march the horses were picketed on built-up ropes, but at Petawawa horse shelters were provided.

The horses were not turned out to graze, as no grass was available.

Horse-shoes were found to last for about three weeks, and the horses were accordingly shod on the average once in three weeks.

The evenings perhaps were a little dull, but the men seemed happy and contented. Rifle meetings, athletic sports, and

mounted competitions were got up for their benefit ; they had plenty of boating and bathing ; they played football, baseball, and cricket, and there were many exciting inter-regimental matches, in which the mounted branches more than held their own.

The tactical exercises were carried out under the personal supervision of Major-General P. H. N. Lake, C.B., C.M.G., Chief of the General Staff, who, on August 15, was pleased to issue the following remarks, which were published in a special order :—

‘ The Chief of the General Staff wishes to place on record his appreciation of the work done by the troops under the command of Brigadier-General W. D. Otter, C.B., A.D.C., at this the first camp at which all arms of the Permanent Force have been assembled for combined training.

‘ During the period of manœuvre the tactical exercises have been carried out with commendable keenness by all ranks, with results which cannot fail to benefit both officers and men, and to enhance their value to the country.

‘ At this morning’s parade and march-past the Chief of the General Staff was pleased with the smart appearance and soldier-like bearing of all arms, both mounted and dismounted.

‘ He appreciated the zeal which induced the 6th “ London ” Battery, C.F.A., to take part in the parade. He was gratified to note the good work done by the Battery, and the excellent progress made in the short period since its arrival in camp.

‘ He will take much pleasure in submitting to the Minister of Militia and Defence a favourable report upon the work carried out at Petawawa Camp.’

On August 22 Brigadier-General Otter hauled down his flag ; and soon afterwards the troops had all returned by train to their several winter quarters.

It is earnestly hoped that henceforth the Permanent Force will be assembled every year, or nearly every year, at Petawawa. The cost is great, especially the cost of railway transport ; but in view of the advantages to be gained, the money is, indeed, well spent.

THE KURDISH MILITIA CAVALRY

BY MAJOR F. R. MAUNSELL, C.M.G., R.A.

A description of this force—Their origin—Their organisation—Offices—Armament—Horses and methods of fighting.

THEIR ORIGIN

THE Kurdish Militia Cavalry forms one of the most interesting corps of the Turkish Service.

By decree of the present Sultan, and mainly on his initiative, the force was first raised in 1892, being called the 'Hamidié Khafif Suwari,' or Hamidie Light Cavalry, in honour of his Majesty.

The country of the Kurds, or Kurdistan, lies in the far eastern part of the Turkish Empire close to the Russian frontier on the north and to that of Persia on the east. The Kurds themselves are one of the races who formed the inhabitants of the country long before the Turks came from Central Asia. They were the 'Carduchi' who rained down rocks on the heads of Xenophon's ten thousand as they won their way to the sea through their mountain defiles. History also credits them with being the ancient Parthians, and what may be evidence of this is the fact that the Kurds of to-day are trained to swing round in the saddle and, as they gallop off, deliver a 'Parthian shot.' Another interesting fact is that the great Saracen leader Saladin, who fought so long against Richard Cœur de Lion in the Crusades, was of pure Kurdish race.

The semi-nomad tribes of Kurds being even now to a great extent independent, the ordinary system of obtaining from amongst them Infantry recruits for the regular army was abandoned as impracticable. Seeing, however, that the numerous tribes on the open plateau between Lake Van and the Russian frontier

contained many mounted men, and also that all intertribal raids and forays were undertaken mounted, it was decided to create a Militia Cavalry regiment from each tribe, somewhat after the model of the Cossack regiments.

ORGANISATION

Up to the present sixty-five of these tribal regiments have been raised, each consisting, as is customary in the Turkish service, of five squadrons of one hundred men. There are



altogether seven brigades, of which five, comprising forty-five regiments—there being on an average nine regiments to a brigade—are raised from the purely Kurdish tribes on the plateau between Lake Van and the Russian frontier. The two remaining brigades are formed from mixed Arab and Kurdish tribes from the plain country further south. Besides these tribes there are several others who have not joined the organisation.

The regiments on the plateau north of Lake Van hold the most important position, as they could raise altogether about 25,000 mounted men, and would form the principal cavalry force in the district.

THE KURDISH MILITIA CAVALRY



The hereditary tribal chiefs, like the old feudal barons, have great power over the men of the tribe and are implicitly obeyed. The tribal chief is, as a general rule, nominated colonel, while the minor leaders become majors, captains, and so on.

Lengthy regulations have been issued regarding the age of recruits, periods of service, length of training, but they remain practically a dead letter, each tribal leader having his own methods of filling the ranks with the best fighting men, whom he then retains in the regiment for practically as long as he wishes.

The brigadiers with their staffs are all regular officers of the Turkish Cavalry service. Some regular officers are appointed to regiments as squadron leaders and are found of great value in perfecting the organisation and training of their regiments, which in recent years has very considerably improved, owing to the increased number who have been attached. A squadron of regular Cavalry is attached to each brigade headquarters, also for the purpose of imparting training.

During the summer months detachments of N.C.O.s from the tribal regiments are sent for training to the great military centres of Erzerum and Van, in order that they may undergo a course of training with regular Cavalry. This is found also to facilitate the training of the men.

Zekki Pasha, the Mushir or Marshal Commanding the IVth Ordu or military district, which embraces all the country adjoining the Russian frontier, is the special chief by whom all the tribal leaders are influenced. Any chieftains who have overstepped the limits of wrong doing, find themselves summoned to the distant headquarters at Erzingan, from which they rarely escape except on payment of a heavy fine.

ARMAMENT

A tribesman never leaves home even on the shortest journey without carrying his rifle and several bandoliers full of cartridges. The rifles which are most in favour are the '45 Martini-Peabody, the former armament of the Turkish Infantry, and the Berdan,

a discarded Russian weapon. A certain number of the new Russian magazine rifles are also to be found in the ranks.

The rifle is carried slung across the centre of the back or balanced on the pommel in front. A short Kurdish dagger is worn in the belt. Many rows of cartridges are carried in waist bandoliers, as will be seen from the photograph, while another bandolier is often worn over the shoulder.

HORSES

The Kurdish horses are, as a general rule, of the cob type, suitable for their style of fighting, but they sometimes appear rather 'weedy,' though they are characterised by exceptional qualities of endurance even in face of short rations and trying circumstances. A very good specimen is shown in the photographs.

During most of the year they are fed on barley and chopped straw, the universal fodder in this part of Turkey in Asia, but in spring and early summer they are allowed to graze. Through the deep snow of the Kurdish winter on the plateau they have to be kept in partly dug out stables attached to the dwellings.

The bit which is in use resembles what is known to us as the 'Mameluke,' an extremely cruel instrument with a high port having a curb in the shape of an iron ring round the lower jaw.

INTERTRIBAL FIGHTS

Regular manoeuvres are never held by the Turkish authorities, but intertribal fights with 200 to 300 men on either side are not infrequent, and are of a certain value for training.

I once had the good fortune to witness one of these. It was conducted generally on Mounted Infantry lines and resulted in a long day of desultory firing at long ranges and skirmishing in open undulating country. After a few men had been hit, both sides seemed to agree tacitly to withdraw and the fight ended. Shock action was never attempted.

Scouting Mounted Infantry work and extended Cavalry raids will probably be the most that these troops will attempt if mobilised for serious warfare.

CYCLISTS IN CONJUNCTION WITH CAVALRY

BY CAPT. A. H. TRAPMANN, *Acting Adjutant 26th Middlesex (Cyclist) V.R.C. (25th Battalion County of London [Cyclist] Regiment)*

The distances which can be covered by trained cyclists in a given time—The road spaces which they occupy—Transport—Repairs—Use of motor cyclists—General principles governing the employment of motor cyclists—With strategical Cavalry—With protective Cavalry—Cyclists in attack and defence—Cyclists with outposts—Combined columns.

WHEN considering the use which may be made of trained Cyclist Battalions, two very important points must be borne in mind—Firstly, that the trained cyclist soldier is as different from the ordinary run of cyclists as the trained Cavalryman is from the man who can only just ride a horse ; Secondly, that the physical and intellectual status of the men of the existing Cyclist Battalions is decidedly above the average.

By trained cyclists I mean :—

- (1) Men who can ride between 400–700 miles a week ;
and
- (2) Men who are not tied to the roads, but can ride over anything but plough, rocky or very hilly country.

TIME AND DISTANCE SCHEDULE

The following table, which applies to cyclists who are in good condition after a week's training, may be taken as a basis for calculations as to the distance which can be covered by any force in a given time. If the men have not had a week's training,

these figures should be reduced on the first three days by one tenth, and on the last four days by one-twentieth.

	1 mile	10 miles	40 miles	100 miles	Limit in 24 hours
Chosen individual riders	3 mins. 4 mins.	30 mins. 40 mins.	2 h. 20 m. 3 hours	6 hours 9 hours	about 200 to 250 miles
A patrol (7 men)	3½ mins. 4½ mins.	40 mins. 50 mins.	3 h. 15 m. 4 hours	9 hours 12 hours	about 100 to 120 miles
A company (60 men)	4 mins. 5 mins.	45 mins. 55 mins.	4 hours 4½ hours	11 hours 14 hours	about 100 to 110 miles
A regiment (528 men)	4 mins. 5 mins.	50 mins. 60 mins.	4 hours 5 hours	12 hours 16 hours	about 80 to 100 miles

The figures above the line in each case indicate what can be done on a *forced march*, while those below the line show the time which should be allowed when preparing a time schedule for a march under ordinary circumstances.

In all cases the time is given from start to finish and includes all necessary halts for rest and food.

The following conditions, however, will modify the rates of march :—

A strong head wind reduces speed one-quarter.

Rain or muddy roads reduce speed one-fifth.

A dark night (with no lamps lit) reduces speed one-third.

A dark night (lamps allowed) reduces speed one-fifth.

A following wind will add one-fifth to the marching powers of the men.

It must always be remembered that whilst protracted operations adversely affect the mobility of mounted troops, the marching powers of cyclists will increase daily as the men get fitter. Accordingly, during long operations, the above-mentioned times will certainly be maintained.

MULTI-CYCLES

The use of multi-cycles with a view to the reduction of road space, and to enable one man to wheel the machine while the

other three are placed in the firing line, is impracticable, for the following, amongst other, reasons :—

- (1) Damage to one machine would incapacitate four men.
- (2) Unhandiness of the multi-cycle.
- (3) Difficulty in obtaining multi-cycles and accustoming men to ride together.
- (4) Difficulty of carrying the rifle, also of mounting and dismounting.

Apart from these disadvantages, the reduction of road space would not be very material.

ROAD SPACES

Cyclists in column of route march in files with an interval of one yard between men and a distance of one yard between files. Although the distance of one yard between files can be easily maintained on flat roads, the tendency on hilly roads is to increase distance on down gradients and decrease it on up-gradients.

The following are the approximate road spaces occupied by cyclists when in column of route :—

A Company : 90 yards with an interval between companies of ten yards ; where road space, however, need not be considered, 100 yards interval is preferable.

A Battalion with machine guns, but exclusive of transport, 880 yards.

Cyclists will pass a given point at the average rate of 200 per minute.

The road space occupied by cyclists is largely a question of training. The writer has frequently seen columns of inadequately trained men straggle to incredible lengths, a mile per 100 men being by no means abnormal.

AMMUNITION

Each cyclist can carry in the pouches provided for the purpose 200 rounds of ball ammunition and, when necessary, an additional 150 rounds in his valise. A cyclist regiment, therefore, apart from all reserve ammunition supplies, could go into action with nearly 175,000 rounds.

TRANSPORT

There is no doubt that the only form of transport which is suitable for cyclists is that provided by motor or steam lorries. Motor lorries capable of carrying 8 tons and of moving at an even pace of 10 miles an hour have been tried and given good results. This type would, however, only be employed for regimental transport, since a smaller wagon would suffice for the transport service of a cyclist company.

A motor similar perhaps in design to a small motor omnibus might give good results, because in addition to carrying ammunition, blankets and stores, it might be so designed as to provide temporary accommodation for wounded men.

REPAIRS

The question of tyres and punctures constitutes a difficulty which has been greatly exaggerated. No man is fit to take his place in the ranks of a Cyclist Battalion who cannot mend a puncture in at most ten minutes. Experience moreover has shown that, with reasonably good tyres, the percentage of punctures for military cyclists works out at one puncture for every 210 miles. Ten minutes delay in every 210 miles is not a very serious matter, and is considerably less than the time spent by Cavalrymen in grooming and watering their horses.

Cyclist Battalions being organised for the purpose of home defence, it would appear unnecessary to provide them with a mobile (motor driven) repairing wagon. Minor repairs can

easily be effected by the roadside whilst more serious repairs can be carried out at any country smithy or cycle shop by men who are cycle engineers. Since there is quite a large proportion of such men in each Cyclist Battalion it would appear to be a waste of money to provide a Cyclist Battalion with a repair wagon which would hardly ever be used. Besides this, cyclists would in war time almost invariably be operating over a large extent of country, and it is more than probable that some local facilities for repairing damage would be closer to hand, and more convenient than the battalion repair wagon.

MOTOR CYCLISTS

In the present (provisional) establishment laid down for Cyclist Battalions the motor cycle does not find a place. This question is, however, at the present time under consideration, and it is hoped that about 20 motor cyclists may be added to that battalion establishment, or, failing this, may be substituted for 20 of the 32 signallers provided for in the establishment.

Motor cyclists are invaluable for despatch carrying in connection with any arm of the service, but more especially is this so in the case of troops as mobile as cyclists.

GENERAL PRINCIPLES GOVERNING THE EMPLOYMENT OF CYCLISTS

It is not the intention in this article to set forth the varied and appreciable services which men who belong to a mounted unit can render to that unit when supplied with cycles, but rather to draw attention to the services which a complete and self-contained cyclist unit could render when attached to a Cavalry force. During the Cavalry manœuvres in 1907 a certain percentage of men in each Cavalry regiment were mounted on bicycles and were found invaluable for scouting and for despatch carrying. Doubtless this is a use of the bicycle

which will become more general as experience proves the utility of men who are so mounted.

In considering therefore the main question, namely, the possibilities of a combination between Cavalry and cyclists, it is necessary to bear in mind the following merits and demerits of the cyclist as compared with the horseman. It can then be seen how each arm can best assist and supply the deficiencies of the other.

The disadvantages of a cyclist are that whilst mounted he is impotent ; he is therefore most vulnerable when on his machine or in the act of mounting or dismounting. He is unable, as a cyclist, to traverse plough-land, gorse or briar commons. When deploying from a road into country on either side he loses more time than the horseman, and the fact of riding over rough ground or fields is apt to unsteady his hand for shooting. If the ground is so rough that he cannot take his bicycle with him, he must either leave it and return to it or one man in every two must be left to wheel the bicycles. Trained cyclists, however, can take their cycles over any but very bad ground.

The advantages of a cyclist, apart from the question of mobility, are that in enclosed country where the fields are small and hedges and fences frequent he can, except for a short distance, get across country quicker than a Cavalryman. He can also dismount and come into action quicker than the horseman, he can bring every rifle into the firing line, and not infrequently he will be able to have his cycle with him, and will therefore be able to advance immediately should the enemy retire. A man on a cycle, both by day and by night, is not only less audible, but also less visible than even a man on foot, and far less so than the man mounted on a horse. Although over a short distance Cavalry might be able to ride down cyclists, the cyclist, being provided with a bayonet, can in a moment convert himself into an Infantryman and turn at bay to face even superior numbers of horsemen with every chance of success. Likewise in a close country intersected by a number of roads a battalion of cyclists

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is more mobile and more efficient in every way than a similar number of Cavalrymen, and they are twice as easy to feed and house. Even in an open country, such as Salisbury Plain, well trained cyclists should give a good account of themselves. For movements at night the silent cyclists have every advantage over horsemen.

It has been suggested that a large body of cyclists could be put out of action by the scattering of drawing-pins over a road. This suggestion however does not take into consideration the following factors :—

- (1) Ground scouts in advance of the main body would give warning of any such obstruction ; or
- (2) Even if no warning was given until every bicycle in the battalion had been punctured it would still be possible to continue the advance at a reduced speed, say 7 miles an hour, on flat tyres, or to halt for 10 minutes and make good the damage.

WITH STRATEGICAL CAVALRY

One or more battalions of cyclists, each 523 strong with two machine guns and 20 motor cyclists, if attached to the strategical Cavalry could, in a country which is suitable to them, undertake the following duties :—

- (1) Strategical and tactical reconnaissance.
- (2) The formation of a screen at all events against hostile patrols.
- (3) The seizure of important strategical points.
- (4) The execution of raids for political or other purposes.

To take these in their order :—

For strategical and tactical reconnaissance cyclists are well suited, especially in countries or districts where there are a considerable number of roads, since their comparative disregard of distance enables them in a short time to reach places where they

are little expected and to make wide detours in order to avoid any points which may be specially guarded.

If strategical Cavalry are operating at distances varying from fifty to a hundred miles from the main army, so, in their turn, may cyclists attached to the strategical Cavalry be thrown forward fifty or a hundred miles ahead of the Cavalry, and still, by means of cyclist or motor cyclist despatch riders, be within a few hours' communicating distance and one day's marching distance.

Another important use to which cyclists are peculiarly well adapted is to secure the concealment of a march. If cyclists are sent ahead of the Cavalry from point to point they should, with careful leading, even in a hostile country, be able to prevent inhabitants along the route of advance from carrying information to the enemy and also do much to prevent hostile patrols from ascertaining the Cavalry's exact time of advance. They could picket every village before the passage of the column and prevent egress therefrom for several hours afterwards, and, when concealment was no longer necessary, abandon this 'police duty' and rejoin the Cavalry.

Cyclists, if in considerable numbers, could be of material use in seizing defiles or points of vantage, bridges or other important strategical points.

In cases where part of the strategical Cavalry's mission is to strike terror into the inhabitants, dislocate commerce and generally to influence the political situation, it would appear that no better ally could be found than a battalion or more of cyclists. Not only would their range of operation be very extensive, but they would dare to thrust themselves in between existing columns of the enemy in a manner that no Cavalry leader doubtful of his line of retreat would consider within the sphere of practical warfare. The cyclist, confident in his capacity to out-distance any troops sent in pursuit, would frequently be able to slip in between two hostile columns and execute raids upon a country-side which might otherwise be considered as safeguarded by the very presence of those two columns. In

addition to this cyclists, if well handled, might frequently mislead the enemy by demonstrations as to the projected movements of the Cavalry. Thus, while sometimes acting in tactical conjunction and sometimes only in strategical co-operation with the main Cavalry column, they should be able not only to deceive and delay the enemy, but at the same time to render the movements of their own Cavalry far more secure and strategically profitable.

In addition to the above mentioned advantages, there might be occasions when, at the end of a day's march, the strategical or tactical exigencies might point to the advisability of bivouacking in a place, say, twenty miles distant. The cyclists could be sent forward without any great wear and tear on the men, while this, if carried out by the Cavalry, might have a very detrimental effect on the horses.

WITH THE PROTECTIVE CAVALRY

A cyclist battalion attached to the protective Cavalry could undertake the following duties :—

- (1) Tactical or other reconnaissance.
- (2) The formation of part of the protective screen.
- (3) The seizure and occupation of important tactical points until the arrival of the Artillery and Infantry.

All of these points have already been dealt with under the head of Strategical Cavalry.

With regard to topographical reconnaissance, however, it may be added that in Cyclist Corps many men have been specially trained for this work, as for instance in the London Cyclist Regiment, which has for some time past made a feature of training men for what is termed the intelligence section—men who are by profession surveyors, engineers and draughtsmen. Mounted on cycles such men can explore the country miles to the front and move far less conspicuously than scouts on horseback. If commanded by an officer or picked N.C.O. they are capable not

only from their mobility but also from their training to accomplish work which is not perhaps within the sphere of ordinary reconnaissance patrols.

CYCLISTS IN ATTACK AND DEFENCE

It may be urged with some degree of justice that although cyclists, strategically speaking, are capable of far more rapid movements than Cavalry, yet when the situation develops into a tactical attack the cyclist degenerates into an Infantryman hampered by a cycle. A study, however, of modern fire effect tends to show that rapidity of advance whilst under fire at distant and long ranges outweighs the advantages of intermittent cover from view. A test which has recently been carried out at the School of Musketry, Hythe, has shown that a cyclist offers a considerably smaller target than a man running on foot, while a time test of a mounted cyclist gave the following results:—

750 yards in 79 seconds.

100 „ „ 21 „

25 „ „ 5 „ *i.e.*, the time for an aimed shot.

In each case the cyclist was timed from one prone firing position to another prone firing position—that is say, he had to unload, rise, attach arms and mount, then to ride the distance, dismount, detach arms, assume the prone position, load and open fire. In each case also the test was carried out over the grass and shingle tracks which intersect the ranges at Hythe.

The conclusion to be drawn from these tests is that at ranges where men could expose themselves with comparative safety for periods of twenty seconds or upwards the cyclist will be far less vulnerable mounted than dismounted. But at 600 yards and under cyclists should advance on foot.

There can be no doubt that in defence the cyclist still derives every advantage from his powers of swift locomotion. When in the occupation of a defensive position he is, unlike the horseman, untroubled by fears as to the safety or whereabouts of his mount—

he knows he will find it where he left it—for choice in a sunken road a few yards in rear—and he can give his whole mind to keeping the enemy at a distance. Cyclists are eminently suitable for the prolongation of the flanks, the formation of a false line of defence in advance of the real line and for the delivery of a counter-attack executed so as to strike the enemy in flank or rear. On those occasions when cyclists and Cavalry are acting in conjunction in the defence of a position, if the force has to retire it is the horsemen who should retire first, leaving the swifter and less vulnerable cyclists to cover their retreat.

CYCLISTS WITH OUTPOSTS

Cyclists when employed on outposts may be used as :—

- (1) Reconnoitring patrols.
- (2) Standing patrols.
- (3) Reserve.

Their duty as reconnoitring patrols has already been considered.

Owing to their powers of watching from afar, cyclists should prove invaluable for the purposes of ensuring security to a force at rest. If standing cyclist patrols were posted at a distance of some miles from the camp or bivouac, the number of troops employed on outpost duty might possibly be greatly reduced, since ample warning would be given of any advance by the enemy, at all events along the roads. A motor cyclist as well as an ordinary cyclist would be especially detailed with each patrol for the purpose of carrying messages.

There are few spots in the United Kingdom at all events which could not be safeguarded at a radius of, say, ten miles by eighteen such standing patrols of, say, ten men each, *i.e.*, three companies of cyclists in all. In the event of attack by Infantry, the camp would receive at least three and a half hours' notice, whilst in the case of Cavalry, the warning would precede the attack by not less than an hour and a half.

In suggesting the relegation of cyclists to the duty of forming the reserve for an outpost screen, I have taken into consideration the fact that an outpost line may often have to be unduly extended and that every portion of it will of necessity be weak. In such a case it will be of the utmost importance that any portion attacked should be reinforced as speedily as possible, and for this purpose no troops could reinforce with greater rapidity, provided that roads existed, than cyclists.

COMBINED COLUMNS

When composite horse and cycle columns are on the march it will be found advisable to put the cyclists in front, not only on account of the dust and of the damage done to roads by the passage of large bodies of Cavalry, but also to avoid the continual galloping of mounted orderlies, &c., along the flank of the cyclist column; for this invariably leads to accidents and damage to cycles. It will also be found advisable to attach a cyclist officer of experience to the staff of the G.O.C. column; his assistance will frequently be found invaluable and tend to the mutual co-operation and understanding of both arms.

In conclusion I cannot but lay stress upon the fact that the time has come when the two most mobile arms of the Service should learn more of one another's methods and tactics; more especially is this so when we consider the question of defending this country against a hostile invasion. Owing to the difficulties of transport it is improbable that an invading army could land any great force of Cavalry, and this deficiency would be made good by the substitution of men on cycles. If our mounted troops learn the strong and the weak points of the cyclist soldier, they will be able either to co-operate with the cyclists of the Territorial Army or meet the invading cyclists with a clear knowledge of what may be expected from that arm.

SOME NOTES ON FIELD TROOPS, ROYAL ENGINEERS, AND THEIR USE

BY CAPTAIN E. S. SANDYS, R.E.

Expeditions in which mounted sappers have been used—The composition and organisation of Field Troops—Equipment—Transport—and their general duties in the field.

THE recent introduction of the new army organisation, by which four Field Troops are allotted to the Cavalry Division, would appear to offer a suitable opportunity for a few notes on the use of these units. A short account also of the occasions when mounted sappers have been employed on active service may likewise be of interest.

EXPEDITIONS WHERE MOUNTED SAPPERS HAVE BEEN USED

Mounted sappers were, I believe, used for the first time in Egypt in 1882. In September of that year a small party of Engineers, consisting of one officer and about a dozen men, were mounted on horses and mules, and attached to the Cavalry division under General Drury Lowe for the night march on Tel-el-Kebir. They carried some telegraph instruments and explosives. In 1884-5 a party of Royal Engineers on camels accompanied the Camel Corps across the desert from Korti to Metemmeh, carrying with them explosives, water supply, and other engineer stores. In April 1885 a mounted detachment of Royal Engineers, consisting of one officer and twenty-eight N.C.O.s and men, was formed at Suakim and mounted on Arab horses. This detachment made up one section of one of

the Guards' companies of the Mounted Infantry Battalion which was attached to Sir H. Ewart's Cavalry Brigade. The N.C.O.s of this detachment carried demolition equipment in leather cases, and each of the sappers carried some pioneer tool on his saddle—viz. pickaxe, spade, axe or saw. A Norton tube well with accessories for water supply was carried on three trotting camels. The engineer work done by this party consisted chiefly of making arrangements each night for the defence of the camp, and of improving wells, &c. They also took part in some attacks on villages, subsequently destroying the wells used by the inhabitants by blowing in the sides.

In 1887 a Mounted Detachment Royal Engineers was formed at Aldershot as a regular field unit; and on the outbreak of war in 1899 it went out to South Africa as the 1st Field Troop. It served throughout the war, and two more Field Troops were also raised for service in South Africa. The work done by these units was very varied; from January 1901 they were employed with mobile columns in clearing drifts, bridging, blowing up farms, &c. A good example of the use of mounted sappers in cutting an enemy's line of communication occurred on the night of March 12–13, 1900, when a party of ten sappers under Major Hunter Weston, Royal Engineers, rode round east of Bloemfontein, and at 4.30 A.M. blew up a culvert on the railway north of the town, and cut the telegraph wires, afterwards returning safely to camp. This piece of work proved of the greatest service to Lord Roberts's future operations, as, not only was the Boers' communication cut off between Bloemfontein and Pretoria, but at the same time the Boers in the former place were prevented from removing to the north their railway material, supplies, and stores. In addition to this eleven serviceable engines and over 100 trucks fell into our hands.

In the China expedition of 1900 a party of about twenty Bengal sappers were formed into a mounted detachment, with pack animals to carry their equipment. They were during hostilities attached to Brig.-Gen. Richardson's Cavalry Brigade,

and at the end of active operations were employed in hutting the brigade for the winter.

COMPOSITION AND ORGANISATION

In 1907, as a result of the new army organisation, the number of Field Troops was increased to five, and one Troop has been attached in peace to each Cavalry brigade.

The composition of a Field Troop will be found on page 68 of 'War Establishments,' 1907-8 ; it will be sufficient therefore merely to add that all the men are mounted on horses, with the exception of eighteen sappers, who are carried in special wagons, and the spare drivers.

The Field Troops are divisional troops, but, in view of the very extended work which would be required of a Cavalry division, it would appear more than likely that they would frequently, at any rate temporarily, be attached for duty with brigades.

Except as regards the raft equipment, and certain technical stores, which are chiefly reserve, carried in one G.S. wagon, each Field Troop is capable of subdivision into two half-troops, each exactly similar in personnel, horses, and equipment. Either or both of these half-troops can be detached for any particular duty, and are equipped with all the stores which are likely to be required for any hasty piece of work. These stores are carried in one double tool-cart.

EQUIPMENT

N.C.O.s and men are armed with the short rifle, and all riding horses carry a tool-bucket on the saddle. Speaking generally, the technical equipment of a Field Troop consists of:—

Entrenching, cutting, and miner's tools ; artificer's tools ; demolition stores, including 300 lb. guncotton ; blocks, cordage, sandbags, &c. ; raft equipment, consisting of two tripartite collapsible boats, which form a raft capable of carrying a gun and limber or a wagon ; telephone instruments ; two lift and force pumps and two waterproof troughs.

Experiments are now being made with 'Polyanski' bags as

materials for making rafts, with a view to their taking the place of the collapsible boat equipment now in use. These bags are made of rubber enclosed in a covering of canvas, and sixty of them when inflated and connected together will form a raft capable of carrying a gun and limber or a wagon. They can be blown out by the mouth, are easily carried, and appear to be durable. If adopted, they would be extremely useful for a variety of purposes, and can also be used to make a foot-bridge.

TRANSPORT

The transport of a Field Troop consists of :—

Two double tool carts carrying tools, explosives, &c.

One boat wagon for raft equipment.

One G.S. wagon carrying chiefly a reserve of stores not likely to be required for immediate use. One water cart.

Four light spring wagons to carry unmounted sappers.

Five pack horses, two of which carry a proportion of demolition stores, two others carry some cutting and entrenching tools, and one carries the stores required for swimming horses across a river by the endless rope method.

DUTIES IN THE FIELD

Among the various duties which would be likely to fall to the lot of a Field Troop in war are :—

(i) Arrangements for the defence of a position or post.

(ii) Construction of bridges, observation posts, &c.

(iii) Repair of bridges and railway tracks.

(iv) Repair of roads for guns and transport, including the clearing of obstacles.

(v) Raids for the purpose of cutting the enemy's communications, and the demolition of bridges, tunnels, permanent way, and rolling stock ; also the destruction of buildings, guns, &c.

(vi) Ferrying guns and transport across a river, including the provision of landing places.

(vii) Repairs to telegraph wires ; tapping lines, and interfering with the enemy's telegraphic communication.

(viii) Water supply duties, including repairs to existing water supplies in an inhabited district.

(ix) Supervision and construction of huts, shelters, &c.

(x) Construction and working of gear for embarkation and disembarkation of troops.

The question of how Field Troops could best be utilised on the line of march, or in action when not likely to be required for technical work, is one on which many views can doubtless be put forward. Briefly, I think that on the line of march it would always be desirable to send a portion (say half a troop) with the advanced guard, as it cannot always be foreseen what obstacles may occur to hinder the march, and at the end of the march their services would usually be required to arrange water supply, &c. The remainder would as a rule march towards the rear of the column, whence they could quickly be called up. In a retirement the Engineers would almost always be required with the rear guard, in order to blow up bridges, &c., and impede the enemy's advance. In actual action the mounted men, if not required for other work, might be advantageously used as escort to the guns.

CONCLUSION

In order that Field Troops may be able to carry out the various duties for which they may be required, it is, of course, essential that the requisite men and stores should be in a position to proceed to the spot and to commence work rapidly. Mobility, combined with convenience of carriage of the necessary equipment, is therefore a point to which it is most necessary that due attention should be given. It will be seen from the foregoing notes that Field Troops are a recent introduction into our army, and no doubt experience will bring to light many points in which improvement can be effected both as regards their organisation and their equipment. The system by which they are now attached in peace to Cavalry brigades should be productive of much valuable experience in these and other matters.

***FRENCH CAVALRY—REGULAR AND
IRREGULAR—IN MOROCCO***

By COLONEL D. F. LEWIS, C.B.

An account of the mounted forces which were employed in Morocco during the Autumn of 1907—A description of Casablanca and its defences—Particulars of several engagements in which the mounted troops successfully attacked both with sword and rifle.

At the end of July 1907 nine Europeans, it will be remembered, were murdered at Casablanca while working on a railway. As a result of this the town was bombarded on August 5, and two days later General Drude landed with his troops, about 3,500 in all. This number was soon brought up to 6,000 men, but of these only 300 were Cavalry, namely :—

- 1 Squadron Chasseurs d'Afrique.
- 1 Squadron Spahis.
- 1 Squadron Goumiers.

A quite inadequate proportion, especially as nearly half of the enemy—who numbered many thousands—were mounted.

This small Cavalry force displayed some striking contrasts.

The Chasseurs d'Afrique are French conscripted Cavalry, a preference being given to Cavalry recruits of French-Algerian birth. They serve for two years with the colours, though facilities are given to non-commissioned officers to continue their service for a longer period. Those, however, at Casablanca did not average as much as two years' service. They struck me as very bright, intelligent light Cavalry, of light but strong physique, and quite good horsemen. Though they understand dismounted work fairly well, they do not excel in shooting. They are armed with sabre, carbine, and revolver.

Their saddle is much lighter than ours, and is not so high in the cantle, and they use a lighter bit. Their horses are larger and of more substance than the average Barb, and are bred specially for them, with a strain of thoroughbred in their Barb blood. Their stable management was good, and the horses kept their condition very well, but they were not overworked.

The *Spahis* are Algerian Arab volunteers. They enlist for five years, and can re-engage up to fifteen. They are as keen as mustard, have good eyesight, are excellent scouts, and are reputed to be good swordsmen. Add to these qualities that they are devoted to their officers, they are nature's gentlemen, and that they are very proud of being soldiers of France. Each Spahi provides his own horse, receiving in return a bounty of 400 francs; they mount themselves on very good Barbs, which they handle and ride excellently. They are armed like the Chasseurs, but their sabre is more curved, and they carry it under the left thigh. They use Arab saddles and bits.

Each squadron of Chasseurs and Spahis consisted of:—

- 1 Chef d'Escadron (captain).
- 1 Captain (second-in-command).
- 2 Lieutenants. 2 Sub-Lieutenants.
- 100 N.C.O.s and men; war strength, 150.
- 110 Horses; war strength, 165.

The Spahi squadron has two Algerian officers; one lieutenant and one sub-lieutenant. The four troops are therefore led by two French and two Algerian subalterns.

In full-dress uniform the Chasseurs wear blue jackets and red trousers, while the Spahis wear red jackets, zouave and braided blue trousers. At Casablanca, however, the men were mostly in their shirt sleeves, and the Spahis wore wide linen zouave trousers. Both of the corps wore wide strong cummerbunds, which were found to be very serviceable.

Both Chasseurs and Spahis have the Cavalry spirit in a very high degree.

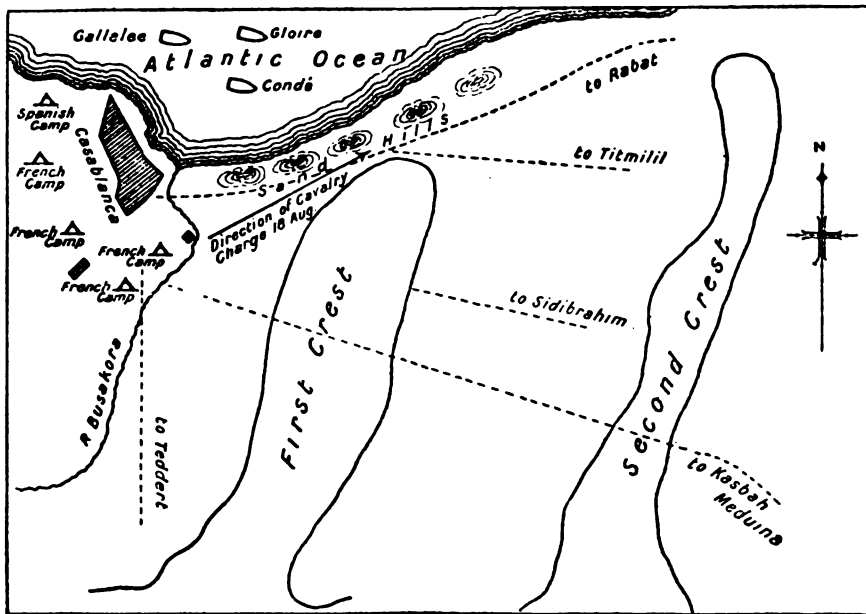
The *Goumiers* are irregular horsemen from the Moroccan frontier of Algeria. They are volunteers of the best type, having left their Arab tents, lands, flocks, and herds owing to their keenness for fighting and their loyalty to France. Like other borderers, they have a standing feud with their kinsmen of Morocco, and the service, therefore, at Casablanca was very congenial. Each man brought with him his horse, saddlery, and equipment, while Government gave him a rifle, ammunition, rations, and forage, and paid him 2½ francs a day. They ride small Barb mares, full of quality, and form a very picturesque force, dressed in their Arab garb, which consists of loose linen trousers and soft red leather boots, over which falls a long-skirted coat of many different bright colours. They are habituated to the conditions of war, and are intelligent scouts; but they were a little dangerous in the early days of their service, since they found it difficult to realise which was their true front. There was, however, some excuse for this, seeing that the Moors circled round their flanks at long range. Under very capable officers, brought from the Chasseurs and Spahis, they became in a few weeks handy irregular Cavalry, working in troops under their own Goumiers troop leaders, and making the greatest concession an Arab can be called on to make—that is, dismounting to fire.

DESCRIPTION OF CASABLANCA AND ITS DEFENCES

Casablanca is a walled town with a sea-front of some 1,200 yards.

The French troops were disposed so as to cover the approaches to the town from all sides, and were echeloned along its length in a series of camps stretching from sea to sea. The headquarters covered the north-east end of the town and the old market place—about 1,000 yards from the sea. The Cavalry, with the exception of half a squadron who were in a camp due south of the town, were encamped here. In front of headquarters ran a little stream, the Busakora, which empties into the Atlantic just north of the town wall, and a mile beyond the Busakora is a ridge which dominates both the camps and the town.

Then all is gently rolling ground rising to a ridge some 600 feet high, and about five miles away, which closes the horizon, and which falls again to the valley which held the Moors' camps of Teddert, Sidi Brahim, and Titmilil, and, farther off, the stronghold of Kasbah Mediuna. Teddert, six miles south, was their main point of concentration. There were probably some 6,000 Moors in the three camps, but this number varied according to the spirits they were in and their power of obtaining supplies.



On the ridge nearest to Casablanca was a post of all arms, and two small redoubts, as well as a line of Cavalry vedettes, extended towards the sea and the north-east. From this line most of the country was visible up to the further ridge five miles away, but it seems open to criticism that no officer's patrol was ever sent to the further ridge.

The country round Casablanca appears from a distance to be an ideal country for Cavalry—rolling ground of easy gradient, no trees, and very few enclosures—but on a closer survey it is seen that a great deal of it is covered by large boulders.

ENGAGEMENTS IN WHICH THE CAVALRY WERE EMPLOYED

On August 18 a very determined attempt was made to drive the French back into the sea. About 3,000 French and Algerian Infantry were lightly entrenched along a low ridge on the near side of the Busakora, and about 800 yards in front of the strongly walled town. Each flank rested on solid buildings, on the roofs of which machine guns were posted. There were six field guns and four *mitrailleuses*; 1,000 yards to the left flank was the Atlantic, with three warships riding at anchor. The Cavalry, then only two squadrons, were behind the left flank. The ridge one mile beyond the Busakora commanded the camp, while spurs running down towards the sea afforded the enemy considerable cover. The position, though it allowed of co-operation between the land and sea forces, was not in other ways a very favourable one for the French.

Several thousand Moorish riflemen, most of them mounted, began by enveloping the position. Then far away to the left front, along the grassy road which leads towards Rabat, a cloud of dust was seen moving towards us. Half a squadron of Spahis were sent out to make sure of its meaning, but soon had to retire before many hundreds of Moorish horsemen, who evidently intended to ride into Casablanca along the shore. The other half squadron, however, and the Chasseurs quickly supported them, while the ships' guns opened fire at about 3,000 yards, though they changed anchorage from time to time. (The flag-ship fired effectively at six miles range.) At the same time two companies of Algerian Tirailleurs advanced very quickly as a reserve to the Cavalry right, but still the Moors galloped on until they were met by an effective charge of the Chasseurs and Spahis. Half of the Spahi squadron were retiring, and the other half came up in support. The Chasseurs then advanced and, passing them, charged in line, the Spahis following in echelon on their right rear. This charge not only stopped, but broke the Moors, and the cloud of dust, then no longer threatening, rolled

back into the hills whence it came. The two French squadrons lost two men killed, an officer—the commander of the Spahis—and eight men wounded. The French Cavalry thus bore an honourable part in the first clash of arms.

The Goumiers arrived on August 23, and soon were given a very prominent place. On August 28 a workmanlike reconnaissance in force was made under Major Provost, a typical old soldier of the Foreign Legion. He had with him the three mounted units, a field battery, and half of his own battalion. To the Chasseurs he entrusted his left flank and front, to the Spahis his right, and to Goumiers his communications between the right flank and the camp in rear—an important *rôle*, since the Moors in large numbers adopted enveloping tactics against the French right. During the advance the Chasseurs and Spahis formed a screen until the Moorish attack developed. As the Moors circled, so did the Goumiers, until there was hardly any point of the compass which did not come within their field of fire. But happily a troop of Chasseurs rounded them up and brought them in behind Provost's left. From that day the progress of these natural soldiers was very rapid. The French officers who trained and led them are as well fitted for the task as any that live. Two were of the Chasseurs and one of the Spahis, but all belonging to the Bureau Arabe. This branch of the Algerian staff is the Intelligence department, and rules certain military frontier districts. They are all efficient Arabic scholars, and know their frontiers and the Arabs of the frontiers like a book.

On September 3, when quite a serious action resulted from a reconnaissance pushed out six miles north-east, they found the enemy a mile ahead of the limit of the French advance, and cleared the front very well when the Moors showed in force.

On September 21, the Goumiers, during an advance, were covering the front of the deployed Infantry when the enemy began to show in force. The Goumiers accordingly mounted and retired from the crest which they were lining down the rear side of the slope and then moved in echelon to the right until

they had cleared the front of the Infantry and threatened the Moorish left. And this after only a month of training.

On the same day the Chasseurs did some very effective work. On high ground, and detached from the enemy's left, was a large farm which he occupied. The Chasseurs were ordered to take this, and accordingly operating about two miles on the French right they threatened his line of retreat, and then dismounting advanced by troops and quickly drove the enemy from it.

On September 11, when the camp of Teddert was attacked and destroyed, the scouting on the left front was entrusted entirely to the Goumiers—and that was the exposed flank. On the left of the line of advance were several farms—a Moorish farm is a serious obstacle ; a very fort, if held. A steep sided ditch surrounds it affording good breastwork cover, and the soil is thrown up to a bank inside covered with cactus and aloe. Several of these farms were found occupied (the Moors' night piquets), and were one after the other turned and cleared by the Goumiers, who kept their honourable position until beyond Teddert—being engaged a mile off to our left front—while the camp was burning, and until every Moor was out of reach of fire.

On the same day the Cavalry were offered a splendid chance, for when the camp was sighted the Moors were seen to be in retreat, and a crowded column was winding its way up a valley not more than 3,000 yards on our right front. Commanding the valley was a long, level ridge with spurs running down towards it in easy gradient. The two squadrons could have followed along that ridge using their carbines while the 75 m.n. shells of the Field Artillery played on the retiring Moors. A charge down the slopes would then have completed their demoralisation. But the Cavalry were keeping up communications between the troops and Casablanca, and probably General Drude was right in sparing his Cavalry. He had only two squadrons, while among the enemy there were a vast number of mounted men, and his little army would have been paralysed without Cavalry. I think, however, that patrols might have been used more freely,

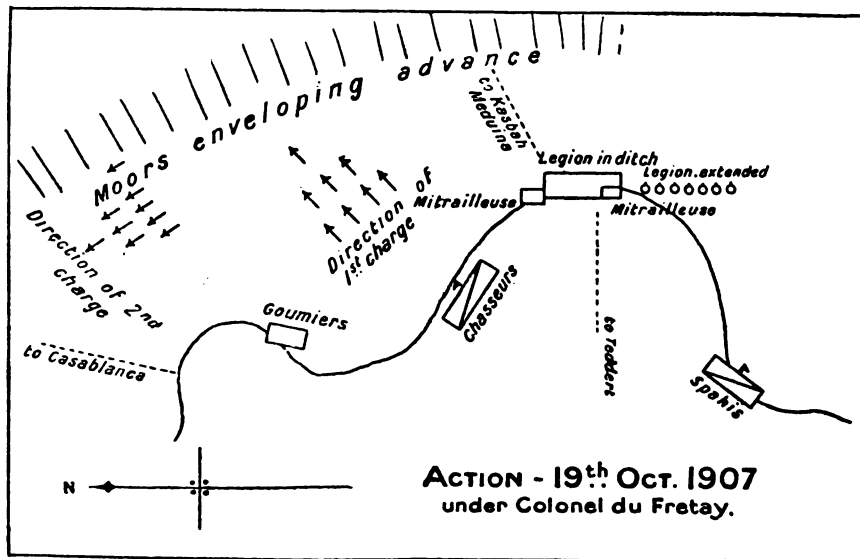
at all events until the arrival of the war balloon, from which the tents in the camp of Teddert were counted before the camp was burnt. But Chasseurs and Spahis were yet to have their day.

On October 18 a young French gentleman riding a mule passed the French outposts and went out into the country. At nightfall five or six shots were heard from a farm two miles from Casablanca, and he did not return that night—and, in fact, never returned—as he was killed by the Moors. On the morning of the 19th a reconnaissance was sent out under Colonel Du Fretay consisting of Chasseurs, Spahis, Goumiers, two *mitrailleuses*, and half a battalion of the Foreign Legion, to search for the missing man. It was originally intended that the Infantry should not go beyond the farm, while the Cavalry should patrol as far as possible from that support; but the fortune of war willed otherwise.

The second crest line was only three miles from the farm, and beyond that numerous groups of Moors were met who fired on the French scouts, and finally a troop of Spahis became engaged with thirty of the enemy in a farm. The Moors were dislodged and pursued, and the Foreign Legion, following in support of the Cavalry, occupied the farm at 11 A.M. The Cavalry ranging wide attracted the attention of numerous Arabs, both mounted and on foot, mostly from the direction of Kasbah Meduina. The Cavalry then retired, clearing the front of the farm.

By 11.30 A.M. the situation was as follows: The Infantry, facing nearly due east, were in the ditch in front of the farm and extended under the crest of the hill on each side, while the *mitrailleuses* were on buildings behind them. The dismounted Chasseurs, about 300 yards to the left rear, faced nearly north, and further back behind their left were the Goumiers in another farm enclosure. The Spahis, 400 yards to the right rear of the Legion, were facing S.S. East. Between the Spahis and the Chasseurs was a shallow valley running up from Teddert; while Casablanca lay to N.W. and Kasbah Meduina E. by N. At the lowest estimate 2,500 Moors were attacking. In spite of the steady fire of the Chasseurs, they gradually enveloped the French left flank.

Colonel Du Fretay sent half the Spahis to prolong the Chasseurs' left. As he saw the Spahis coming up, Captain Ihler, commanding the squadron of Chasseurs, sounded the *cease fire* and the *mount*; but alas! with one foot in the stirrup he was shot and died soon afterwards. But his squadron avenged him by a very gallant charge to the left front, the reinforcing Spahis following their left in echelon and charging past them as they rallied under a heavy fire. Then the Chasseurs changed front and charged again to the left rear, the Spahis once more supporting them behind their right. These two charges, brilliantly delivered, cut



the Moors in half and entirely relieved the pressure on the Goumiers. Moreover, they had another important tactical result.

General Drude only heard at noon the position of Du Fretay's troops. He considered the force much too small to be so far from Casablanca, and accordingly ordered an immediate assembly, and marched in twenty minutes with two Field Batteries, two *mitrailleuses* and two battalions of Infantry. The Cavalry charges had been delivered at exactly the right time and in the right direction. The first had been towards Kasbah Meduina, the second towards Casablanca. The flying Moors, driven into a mass, rode straight towards the General's advancing troops and

offered the best mark to the field guns which they had yet obtained. As the General advanced the pressure on Du Fretay's troops was relieved, and there was soon a general retreat. At the same time the Cavalry pressing on the left flank of the retreating Moors caused them to mass and offer once more a good target to the guns. The charges produced some fierce hand-to-hand fighting. The Moors after discharging their rifles often hurled stones in the horses' faces. Lieutenants Burnol and Reich both had two horses killed; Lieutenant Burnol, falling beneath his horse, was seized by a Moor, whom he ran through just as the Spahis arrived in the very nick of time, for other Moors were approaching.

The charge cost the two squadrons the gallant Ihler, and two men killed and six wounded, ten horses killed and eighteen wounded. But the Cavalry killed nineteen Moors in the first charge alone, and I saw the marks of their sabres on eleven men lying dead in the path of that charge.

I rode home with a grandson of the Sheikh leader, Abdel Kadir, who is a lieutenant in the Spahis, and whose troop extricated Lieutenant Burnol from his unpleasant position.

This action, admirably fought in every detail, closed the first stage of the fighting round Casablanca. It had a good moral effect. A great religious personage, the Sherif Bejad from the lower spurs of the Atlas, had come to Kasbah Meduina with a large following to try and arrange peace. His nephew, with several horsemen, visited the French Consul, M. de Malpertny, on the day of Künzer's death, and some of his men bandied words with some of the Spahis who escorted them to the town and dared them to come out *without* guns and *see* who were the best men. On the following day Du Fretay had no guns—so they saw!

Since General Drude took the Kasbah Meduina on January 4, and General d'Ainade succeeded him in command, the French newspapers have told of much hard fighting—harder than any of the autumn campaign, and Chasseurs and Spahis have been very prominent. But I doubt if there has been a better fought action than that of October 19, under Colonel Du Fretay.

PICKETING GEAR FOR CAVALRY

By BRIGADIER-GENERAL H. D. FANSHAWE, *Commanding 2nd Cavalry Brigade*

The methods of picketing horses which were adopted in Egypt in 1882 and in 1884-5—Description of the picketing gear used by the Central India Horse on the North-West Frontier in 1897—Its adoption by the Queen's Bays—Its advantages—An improved form for general use by Cavalry.

OWING to the difference of opinion which exists as to the best method of picketing Cavalry horses, I venture to give my experience in the matter.

When the Cavalry were landed in Egypt in 1882, the regiments were provided with the long picket ropes, and posts which had to be driven in with heavy mauls, all of which equipment was carried in the transport carts; each horse also carried a head rope, heel rope with two shackles, and a wooden heel peg. This picketing gear had answered its purpose in a standing camp at Aldershot, but after the first march through the sand, from Ismailia, the carts were not forthcoming, and although the horses had been loaded up with head and heel ropes and pegs, they could not be picketed, and remained linked together by their head ropes, which we all know means little rest for the unfortunate horse. When the transport carts with the long picket ropes and posts did arrive, it was found that no pegs, however long, would hold in the desert sand, so the rope had to be fastened to sacks filled with sand and buried. This answered fairly well until a camel appeared near the lines, when I think no picketing gear ever invented would have stood the test, and there was a general stampede. Again, after the battle of Tel-el-Kebir, when the Cavalry pushed on to Cairo, the wheeled transport was left behind, and on arrival at Abbasiyeh there was no means of picketing our horses, so they were accommodated

in the Egyptian Cavalry stables, and the Arab horses which had previously occupied them were turned loose in the desert.

During the campaign in the Soudan in 1884-85 we experienced the same difficulties with regard to picketing in the sandy soil. On one occasion, when ordered, with my troop of the 19th Hussars, to bring some camels about 100 miles across a portion of the Bayuda Desert, in order to save our horses we rode the camels, and led the horses, tied to the camels' tails. As none of us had any previous experience of this description of remount, the start was rather amusing, but we soon settled down, and when we bivouacked at the end of the first march we found the difficult problem of how to picket our horses in the sand was on this occasion solved for us, as the camels made excellent picket pegs, and the little Arab horses remained fastened to their tails. But of course this mode of picketing could not be permanently adopted, and up to the present date practically the only change that has been made in our authorised picketing equipment is that the long heavy rope has been replaced by one built up of shorter lengths of lighter material, a second short wooden peg is carried for each horse instead of the long picketing posts that were used with the heavy rope, and only one shackle is used on the heel-rope.

I have never considered our equipment satisfactory, and in the autumn of 1897, when on the North-West Frontier of India, I noticed that the men of the 'Central India Horse' carried iron pegs and short chains or cord with which they picketed their horses by one foreleg. I was struck with the advantages of this system, and have since then always adopted it.

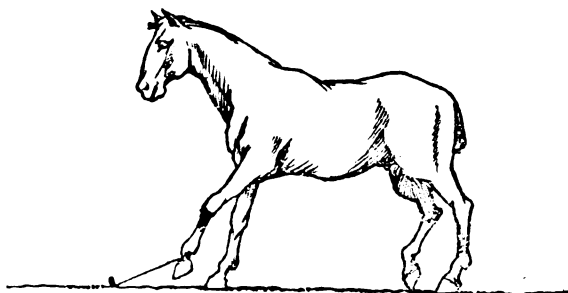
During the six years that the 'Queen's Bays' were in South Africa, a large proportion of which time was spent in camp or bivouac, the horses of the regiment were invariably picketed by one forefoot, the heel-peg and shackle with the rope tied so as to give a length of 18 inches being used for the purpose. No other picketing gear was carried, and the system was found to answer admirably. It has the following advantages:—

(1) Every horse can be picketed at once, whether with the squadron or detached.

(2) The horse can always turn away from the wind, and can lie down with comfort.

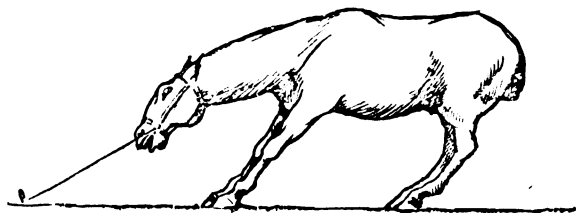
(3) The gear is very quickly put down and taken up.

(4) Horses cannot put so much strain on the rope by lying back with their whole weight as they do with a head rope.



(5) There are far fewer rope galls than with head and heel rope.

In the summer of 1903 I was in command of a composite regiment at Bulford, made up of three squadrons from different Cavalry regiments. Each squadron employed its own method of picketing; the horses of one were picketed in troop circles, those of the second on the ordinary built up line with head and heel ropes, and in the third the forefoot shackle was used.



On going through the lines, when all was quiet at night, I noticed that a far larger proportion of the horses were lying down in the squadron picketed with the forefoot shackle, than in either of the others.

There are certain disadvantages in the present pattern heel rope and peg when used for picketing by the forefoot :—

(1) The wooden or iron peg with ring cannot be driven in, so that the top is flush with the ground; the result being that the horse sometimes lies or rolls on the peg, which may raise a lump.

(2) There being no swivel, the rope is liable to get twisted into a knot.

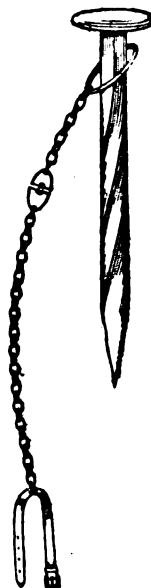
(3) As the rope has to be tied to the peg or ring, if the horse does pull up the peg, he goes away with it hanging to his forefoot, and is likely to get a blow from it.

It has been found that these disadvantages can be obviated by using: (1) a nail-headed iron peg with a flat top; (2) a chain or rope with a swivel; (3) a big ring at the end of the chain or rope, attaching it to the peg by passing the latter through the ring, so that if the horse draws the peg it soon slips out of the ring and is detached.

In South Africa, after trying pegs of various patterns, and having a competition for the farriers as to who should make the most serviceable peg, the best was found to be an iron one with a flat nail-head, and a stem 16 inches long of square bar-iron, given a twist when heated, to make it hold better. Most of the officers of the Queen's Bays used one of these pegs, a light chain with swivel and shackle for each of their horses. I used a similar pattern chain and peg for my horses at the Brigade Training Camp and manœuvres in Wiltshire last summer, and found that they answered their purpose excellently.

Weight of peg	2 lb. 4 oz.
Weight of shackle and chain	1 lb. 4 oz.

This method of picketing is probably not the most suitable for Artillery or Transport horses, which can be quickly and securely fastened to a rope run between two wagons; and I do not suggest that it, or any other method, except that of men actually standing to their horses, will prevent a stampede if the horses are really frightened, but for Cavalry it enables both horse and man to get the maximum amount of rest under the ordinary war conditions.



***THE NEW CAVALRY PIONEER INSTRUCTIONS
FOR THE GERMAN ARMY***

BY CAPTAIN C. W. SINGER, R.E.

The contents of the new Book of Cavalry Pioneer Instructions issued to the German Army—The new points which it contains—Destruction of locomotives and bridges, etc.—Description of the new steel boat bridging equipment—Method of adjusting trestles.

THE 'Kavallerie-Pionierschrift,' Cavalry Pioneer Instructions, containing the latest official instructions for the Cavalry of the German Army in field engineering generally, was published on October 24, 1907, and superseded the 'Cavalry Fieldworks Instructions.' It contains most useful information in the small compass of 202 pages, is clearly illustrated with 146 plates and diagrams, and is of a size suitable to be carried in the pocket.

The book is divided into three main parts :

- (1) General Instructions.
- (2) Demolitions by Cavalry in the field.
- (3) Methods of crossing rivers and reconstruction work by Cavalry in the field.

Part I. calls for no special mention. It lays down generally the instruction in Cavalry pioneer work which is to be taught regimentally and at the Cavalry schools, also the means by which this instruction is to be given. In former years one Engineer officer was detailed every year to act as instructor to each Cavalry regiment; in future this officer will have three assistants—viz. one N.C.O. and two sappers. The Cavalry officers and N.C.O.s should already have made themselves acquainted with the regulations, and should only require in-

struction in practical work and in such special operations as demolitions and bridging.

Part II. is given up to demolitions by Cavalry in the field. It contains general, and in some cases detailed, instructions as to the blocking and demolition of railways and of all kinds of bridges. It commences by detailing the explosives and tools carried by a Cavalry regiment of four squadrons and by a Cavalry division, and the method of packing and transporting these tools and explosives.

The remainder of Part II. is interesting, but there is nothing particularly novel in it that is not contained in our own military engineering text-books, although even the recently published 'Field Service Pocket Book' does not afford so much useful information in such a handy, compact form. The following are possibly the most interesting points.

Plates 17-20, pp. 31-34, explain very clearly various methods of fixing different kinds of rails to sleepers, from which the best methods of destroying the rails can be learnt. The instructions state that much may be done by Cavalry, especially in the way of small parties pushing round the enemy and carrying out destructive works in the enemy's rear.

Plate 21, p. 35, gives a good description of the method of blowing up a rail, but this does not differ from that in vogue with us.

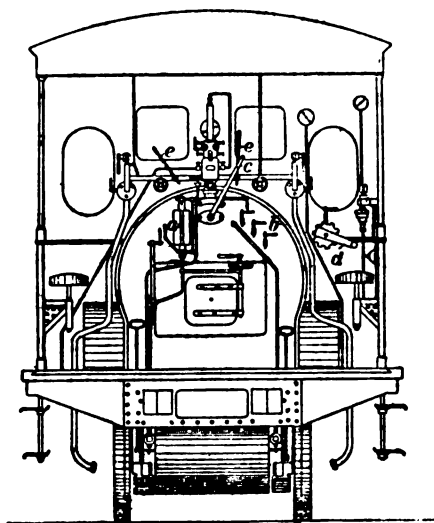
On pp. 37 *et seq.* there are useful suggestions as to the demolition of important railway stations, with plates showing points, switches, and cross-over roads of a railway line, and the best places in which to put the charges of explosives in order to destroy them.

Plates 27 (a copy of which is shown here) and 28, pp. 42, 43, are most instructive, as they give a good view of a locomotive, with some useful hints as to the best methods of rendering a locomotive useless.

Pages 44-51 give instructions as to rendering telegraph and telephone lines useless, either by completely or only partially destroying them or by constructing hidden faults.

The remainder of Part II. consists of very plain instructions and plates giving details of the best methods of destroying all varieties of bridges—wooden, girder, and masonry; also a few notes on the destruction of tunnels and various methods of rendering guns useless. There is, however, nothing new to remark on these instructions, except a small point mentioned on p. 58. With us, if the calculated charge of guncotton to destroy a girder is not long enough to extend over the whole breadth of the web of the girder, we either increase the charge

PLATE 27

POINTS ON AN ENGINE TO DESTROY
OR DAMAGE

- a*, Water gauge; *b*, Testing cocks;
c, Regulator lever; *d*, Reversing
gear; *e*, Injector lever

or preferably cut the slabs in two in order that the charge should be long enough to extend over the whole web. In the directions, however, which are given in this book the slabs are not cut, but the middle slab or slabs are arranged diagonally, so as to touch the neighbouring slabs, and thus extend over the whole web; but undoubtedly with this method there would be considerable danger of not being able to fix the middle slab so securely that it could not shift. If it shifted, the slabs would no longer be touching, which is essential for a successful demolition.

Part III. is taken up with instructions as to various methods of crossing rivers and with reconstruction work by Cavalry in the field. The first few pages, twelve in number, contain general instructions as to the necessity of previous practice for Cavalry in crossing rivers, choice of crossing-places, rowing drill, and different methods of swimming horses across rivers—by using a ferry-boat, or by swimming them by the side of an existing bridge, or by swimming them straight across. It is pointed out

that the usual method of crossing a river will be by the men and equipment crossing in boats or on rafts, the horses swimming, and Artillery and vehicles crossing by means of rafts or bridges.

The chief interest in this part, and possibly in the whole book, is the description of the new steel boat bridging equipment which accompanies the German Cavalry. The old bridging equipment consisted of collapsible boats of canvas, each boat being made up of a centre and two pieces; but this equipment has been found to be unsuitable, principally owing to the canvas being easily damaged and the wagons being heavy. Full instructions as to its use are, however, still given on pp. 122 *et seq.* The chief points of difference between the old and new equipment are :

- (1) The 'collapsible boat' wagon with six horses has been replaced by two four-horse wagons.
- (2) The tri-partite collapsible boats have been superseded by half-boats of galvanised mild cast steel.
- (3) A fixed 'chess-table' is used instead of the loose chesses.
- (4) Superstructure for eight bays is carried instead of six as before.
- (5) The whole equipment has been strengthened.

The chief advantages claimed are :

- (1) Greater mobility and stability of the wagons.
- (2) The steel boats are far stronger and stand rough usage much better, as well as giving more buoyancy and being more suitable for use under varying conditions.

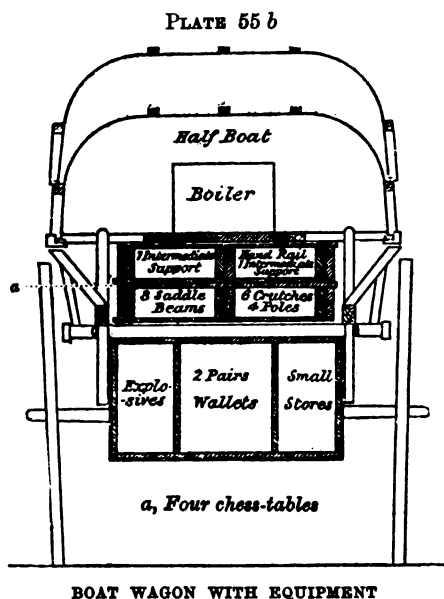
The following is a short description of the 'steel boat bridge' equipment :

The 'Cavalry half-boat,' or, as we should call it, the bipartite pontoon, is of galvanised steel, 11 feet $3\frac{1}{2}$ inches long, 5 feet 2 inches broad, and 1 foot 10 inches deep in the clear, the frame-

work consisting of wrought-iron ribs, to which the steel skin is riveted. Each half-boat has a pointed bow and square stern.

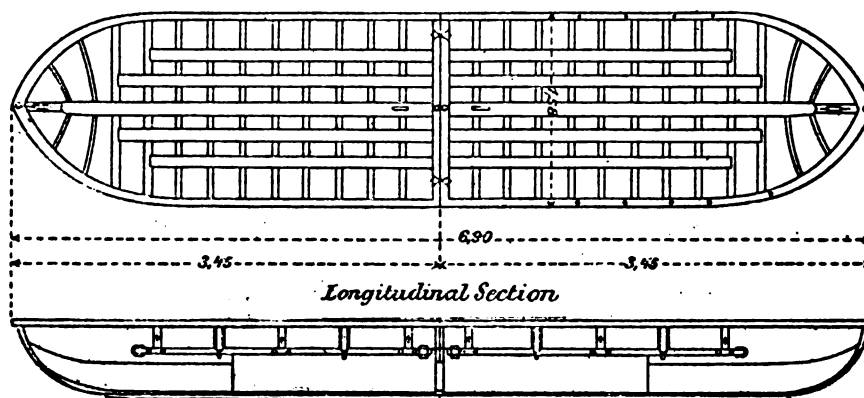
The sides of a boat are protected by a continuous wooden rail on the outside.

When placed on the wagons the boats are put one on the top of another, upside down, the upper boat resting on the wooden rail of the lower, as shown in Plate 55 *b*. On this rail are straps with hooks fastened to the gun-wales, which are used for lashing the boats to the wagons and also for securing the 'chess-tables' to the boats when forming a bridge.



A complete boat can be formed by lashing two half-boats together stern to stern, as shown in Plate 50, which can be

PLATE 50

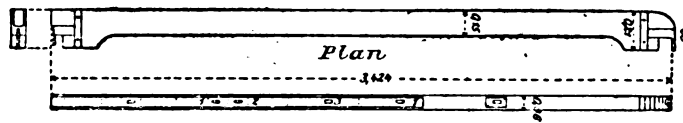
Plan

TWO HALF-BOATS JOINED TOGETHER STERN TO STERN

done either on land or in the water. The half-boats, which weigh approximately 2.6 cwt., are, however, more easily handled

on shore than the complete boat, and are easily joined up together after launching. The 'saddle beam' (Plate 51) has a hook at both ends, which fits into holes at the bow and stern respectively, and thus gives a support for the superstructure clear of the comparatively slender gunwales of the boat. This saddle beam can also be used as a shore transom, sunk into the ground and secured by pickets in the usual manner.

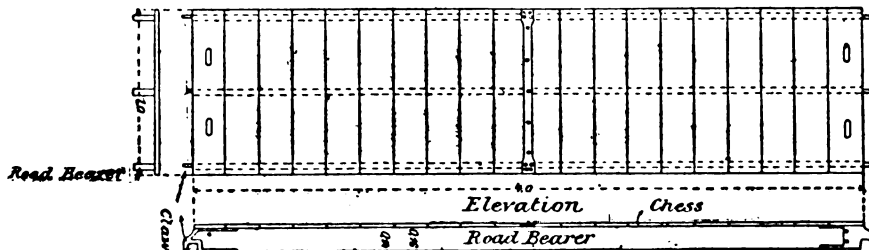
PLATE 51

Elevation


SADDLE BEAM

The 'chess-table,' as shown in Plate 52, presents several advantages over the ordinary superstructure of road-bearers and loose chesses. It is probably quicker to construct, and there is no need of ribands or rack-lashings; but it is heavier to move, weighing about 1·8 cwt., and also probably takes up more room on the wagons. It consists of three road-bearers, the outer ones

PLATE 52

Plan


CHESS-TABLE

fitting on the saddle beam with claws and the middle one with an iron attachment. The chesses are screwed on to the road-bearers. The remainder of the superstructure presents no special feature of interest, except possibly the anchors, which appear very light, weighing only about 66 lb.

Each Cavalry regiment is accompanied by two four-horsed

wagons containing the following equipment, which is so packed, as shown in Plate 55 *b*, that all the stores are very easily accessible :—

8 chess-tables	16 handrail lashings	4 intermediate sup-
4 steel half-boats	12 shore pickets	ports
6 handrail supports	6 saddle beams	12 crutches
12 oars | 2 anchors	8 poles | 4 cables	8 short lashings

Sufficient to construct a foot-bridge 22 yards long, or a two 'chess-table' bridge 17 yards long, or a three 'chess-table' bridge 13 yards in length.

The various forms of bridges that can be constructed with this equipment are as follows :

Foot-bridge (one 'chess-table').—This light bridge is made by using half-boats as the floating piers, the span being in all cases 13 feet. This form of bridge is only suitable for use in a stream with very little current, and is used generally for crossing men with their saddlery and kit, while the horses are swum alongside, close to the bridge on the down-stream side, each horse being guided by a lance, with its point fixed to the throat-lash of the halter.

If it is desired to make a longer bridge than can be obtained by only using the four half-boats with a regiment, improvised piers of trestles or piles can be used with the whole of the eight 'chess tables,' giving a length of 34 yards.

Two 'chess-table' bridge.—This form of bridge can be constructed with three floating piers, viz: one half-boat, then one complete boat (of two half-boats joined together), then one half-boat, with eight 'chess-tables,' the 'chess-tables' being laid in pairs across each span, giving a width of roadway of 6 feet 6 inches. This form of bridge will carry led horses in single file with intervals, men in file breaking step, or light unloaded wagons man-handled across.

Heavy bridge (three 'chess-tables').—In this bridge complete boats are used as the floating piers, and three 'chess-tables' are

placed parallel and touching one another over each span, giving a width of 9 feet 10 inches. This bridge is suitable for ridden horses in single file, infantry in fours not crowded, field guns unlimbered, ammunition wagons unlimbered, S.A.A. carts, or light baggage wagons.

It is stated that a Cavalry Division can construct with its equipment:

- 131 yards of foot bridge,
- 104 yards of 'two chess-table' bridge, or
- 52 yards of 'three chess-table' bridge.

Capacity of the Steel Boats of a Cavalry Division.—The complete boats, twelve in number, of a Cavalry Division can ferry across a river 120 dismounted men, or nineteen Cavalrymen with kit and saddlery, in one journey.

Floating bridges.—A Cavalry Division can form six floating bridges, of two complete boats each, which will carry 180 men, or twenty-four horses with saddlery, or six guns at once.

Rafts.—In forming a raft with this equipment two complete boats, with four 'chess-tables' parallel to one another lashed to the hooks on the outside of the boats, are used. A Cavalry Regiment can construct with its equipment one complete raft and a 'two chess-table' roadway to both banks. The buoyancy of each complete boat is sufficient to carry ten Infantry soldiers with equipment or eight Cavalrymen with saddlery and equipment.

Pages 122–149 contain an equally exhaustive description of the 'collapsible boat' equipment, but is of little interest, as this equipment is practically obsolete.

Various kinds of lashings, such as the diagonal and cross lashing, &c., are clearly shown and explained, and differ considerably from ours, principally because the returns are allowed to ride over one another and would apparently be difficult to get taut without the use of wedges.

The remainder of the book is taken up with reconstruction work; improvising trestle, pile, and floating bridges, and barrel

rafts ; also some short notes on camping arrangements and the construction of portable ramps for entraining horses and vehicles.

Page 163 gives a good method of adjusting the transom of a trestle pier by means of a long spar used as a lever, as shown in Plate 104, the fulcrum being provided by a rope loop fixed to the head of one of the legs of the trestle, through which the spar is passed.

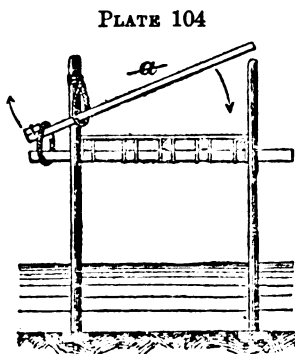


PLATE 104

ADJUSTING A TRANSOM

On page 164 there are a few clear directions as to improvising boats to act as floating piers of a bridge, but there is nothing novel in the design.

Pages 173-175 provide some good suggestions as to different means of placing trestles at the head of a bridge, not always an easy operation :

(1) By securing the trestle in an upright position to the outside of a boat, two long ropes passing from the boat round the ledger, thus holding the trestle up, while the head of the trestle is controlled by two spars lashed to its head from the bridge. The boat, with the trestle attached to it, is then pushed out to the required position, the ropes holding the trestle are let go, the feet of the trestle being previously weighted, and the trestle takes the ground.

(2) A similar method, but using a boat or barrel raft.

(3) Using an inclined spar as a launching way, as is described in our own text-book.

Pages 192-194 show some forms of field kitchens and improvised wind shelters, but call for no particular remark.

Pages 194 to end give clear directions as to the construction of portable ramps for entraining and detraining horses and vehicles, and of improvised platforms of sleepers placed crib-wise.

Cavalry, to fulfil its mission properly, must act independently of other corps and must be self-contained ; this it can never be if it lacks a comprehensive technical training, and there is no doubt that this book provides all the technical information required by Cavalry in the field, put very clearly and with many good diagrams.

THE YEOMANRY

BY COLONEL LORD HARRIS, G.C.S.I., G.C.I.E., *Royal East Kent Yeomanry*

A review of the changes during the last thirty-five years in the constitution of the Yeomanry, and the conditions under which they have served—Suggestions for improving the efficiency of the force—Recommendations as to the training of officers and men.

At the request of the Editors I supply this article, which is meant to put on record in this Journal for reference, if necessary, when, as I hope it may, it has reached a very old age, some of the changes which have come over service in the Yeomanry during the last thirty to forty years—changes which have paved the way to the position at the present moment, when another great change has been applied to that force.

In the vast mass of writing that has been published, and in the many lengthy speeches that have been made about the Territorial Army in the last twelve months, it is curious how few have been the references to the Yeomanry, from which omission the inference might be drawn that writers and speakers alike assume either that the Yeomanry have not been affected by the creation of the Territorial Army or, if affected, they can nevertheless be depended on to respond loyally and readily to the appeal of Government. That they have been affected, and very considerably, is undoubtedly the case, but the force has become now so accustomed to changes, and has responded invariably so loyally and readily to the appeal of Government, that the assumption of writers and speakers, referred to above, is probably well founded.

It must not be assumed that what follows is exactly descriptive of every regiment in the force : it is certainly correct of one

regiment, and is probably correct of a considerable majority ; but there are factors in different parts of England which have affected the force in various ways—*e.g.* some regiments have been wealthy, and have therefore been able to supply themselves with kit which other regiments have had to go without ; some regiments have been better situated than others as regards mounting their men ; but, taking the force as a whole, I imagine that the changes, to which I refer in what follows, have produced pretty much the same results in the greater part of the force.

Five and thirty years ago the training was for eight days only, and the men made their own arrangements for lodging and stabling their horses ; the men were largely drawn from the agricultural class, and as there was a tax upon horses from which the Yeoman was exempt, there was an inducement to the man owning a horse to come into the Yeomanry. He supplied his own saddlery and parts of his uniform, and all of his stable kit. The type was rougher than it is now, but quite as ready, and probably there were more good horse-masters amongst the men than there are now. The carbine was not a favourite weapon of the Yeomanry : they regarded the sword as their chief weapon. Parade movements were of far greater importance than they are now : parade movements were done every day until the day of inspection, and I suppose it will be in the recollection of many old officers that if the inspection day happened to be windy the regiment drilled worse that day than it had done during the whole training.

The date of which I am thinking was only a few years prior to that combination of bad seasons and severe competition in agricultural produce from America which so seriously affected the agricultural classes in all parts of England, and especially in the corn-growing counties. But for some years before the disastrous season of 1879 there had been signs that the agricultural classes, and therefore the Yeomanry Cavalry, were suffering ; numbers began to fall off ; the horse tax had been taken off altogether, and the Yeoman therefore lost that advan-

tage. At the same time new ideas began to permeate the force ; the Yeomanry School had been established at Aldershot, and young officers came back to their regiments full of Captain Percy Barrow's ideas as regards the utility of mounted troops as the eyes of the Army. They felt that too much of parade movements was waste of time ; they felt that the carbine could be made more useful than the sword ; and these views undoubtedly were perplexing to the old officers and old Yeomen, and perhaps caused some of both to retire earlier than they would otherwise have done.

Now, the training of eight days had been practically unchanged for the greater part of the century, and the first of those changes which have been applied to the Yeomanry was to call upon them for an additional two days of service. No additional advantage accrued to the officers or men, but Government relied upon the loyalty of the force to respond to its demands, and was not disappointed. That is to say, the force did its best to respond ; but as the old race of farmers found it more and more difficult to meet their financial engagements, so Yeomanry officers found it more difficult to keep their troops up to strength, and regiments fell away in numbers so seriously that Government considered it advisable to economise in the cost of the force in several ways, the most important of which was the reduction of adjutants from one per regiment to one per brigade. At the same time it should be recorded that they had improved the grant for clothing and the other expenses incidental to the maintenance of the regiment from 2*l.* to 3*l.* The Yeoman still continued to find his horse and saddlery without any cost to Government, and received the same consolidated pay that he had received for the whole century, viz. 7*s.* a day.

This may seem to some extravagantly high pay, but when it is understood what the Yeoman had to provide out of it it proves to be quite the contrary. The horses had to be stabled in the town where the regiment assembled, and owners of stables of course combined, so the Yeoman had to pay about four

shillings a day for stabling and forage ; he had to find food and lodging for himself, to get himself and his horse to the place of assembly, to provide some necessary clothing, a kit, all the saddlery, and to take all risks to himself and his horse ; in fact, if he could do the training without paying something out of his own pocket he had to be either exceptionally well situated for the training or extraordinarily economical.

There had always been discussions as to whether it would not be possible to go into camp, but it was generally believed that the Yeoman would not care to risk picketing his horse, for in those days Government made no allowance of any kind to the man if his horse suffered from the training, even if it died as the result of service ; neither, for the matter of that, did the man receive anything even if seriously injured ; occasionally attempts were no doubt made at camping out, but the horses were put into canvas or wooden stables, not picketed.

Owing to the training and education of the Yeomanry School and the efforts of Lord Wolseley, parade movements were in the course of time no longer regarded as the be-all and end-all of the ten days' training ; reconnaissance and efficiency with the carbine were recognised as important essentials ; but even Lord Wolseley had to struggle against the fancies of inspecting officers, some of whom still pinned their faith to the *arme blanche* and, absolutely contrary to War Office orders, would insist on seeing sword exercise done.

The force had therefore fallen to very low depths when the South African War broke out, and, with the exception of Yeomanry officers who happened to be members of one or other House of Parliament, had no one to say a word for it there ; successive Governments displayed but very faint confidence in it, and successive Secretaries of State depended rather on the comparatively small cost of the vote for getting it through than on their own settled convictions that the force was most necessary.

The war came, and to some of us who were summoned by Government when at their wits' end to assist them practically,

it was obvious that what we then undertook to do would, as one of us remarked, 'end us or mend us.' It did the latter, luckily for the country; but it was not so much the prestige which the Imperial Yeomanry deservedly acquired during the South African campaign that saved us from extinction as the changes which Mr. Brodrick introduced into the conditions under which the Yeoman served. But for these, many regiments, especially those in counties most heavily hit by agricultural depression and where the nag horse was no longer kept, must have dropped back into the slough of despond in which they were being gradually engulfed.

Mr. Brodrick on entering the War Office lost no time in starting an inquiry; he appointed a Committee of Yeomanry Officers, of which I had the honour of being Chairman; he received its report in time to send it to meet Lord Roberts at Madeira on his way home, and to receive his opinions in time to include the necessary financial provisions in the Estimates of 1901. The recommendations of the Committee were adopted by Mr. Brodrick almost *en bloc*, and from that day the force has so won the confidence of the country that it is as rare now to find a member of Parliament criticizing it adversely as before 1901 it was to find one expressing confidence in it.

Probably the grant which has had the most to do with effecting this satisfactory change is the £5 for the horse: for this enabled many young men, who before it was given were quite unable to provide a horse, to hire one; and that grant, coupled with economy in expenditure resulting from going into camp instead of into lodgings, enabled the careful Yeoman to live very comfortably for a fortnight, and to take back home something saved out of his pay. This is, I submit, as it should be. The Yeoman or Volunteer ought not to have to pay out of his own pocket for giving up his holiday in order to serve the country. Another most valuable concession was the grant of compensation for a horse which died from accident or exposure. This enabled us to get over the objections to picketing, and to accept the condition that the annual training should be done in camp.

But at the same time that Mr. Brodrick improved our conditions of service so materially he demanded more of us: he asked us to train for sixteen days at least, or for eighteen if the squadron drills were performed at the place of training; he gave us pay for days spent in doing the musketry course and for mounted squadron drills, but he demanded a higher efficiency in musketry, and imposed a minimum number to be present at the squadron drills. He reverted again to the old arrangement of an adjutant to each regiment; he laid down a service dress as essential, which undoubtedly was a heavy expense to impoverished regiments, but at the same time he made an issue of saddlery, and I submit that no one can dispute that the force has responded generously to the generous treatment it received.

Another great change in the character of the service was that he made us the mounted branch of the Militia. Previous to 1901 it was a service apart, its members received pay but they were not Militiamen; in many matters the regulations were the same as the Volunteer Regulations, but the legislation governing the Volunteers did not affect the Yeomanry force. In 1901 the Imperial Yeomanry—a title which had been granted to it after the war to commemorate its connection with the gallant comrades who did such good service in South Africa—were incorporated in the Militia, officers were made subject to military law at all times, and the men when assembled for training; and the force appreciated the compliment of being made part of that force, which of all the Auxiliary Forces of the Crown had during the South African War displayed the highest patriotism. Attestation was accepted in lieu of enrolment without grumbling—the Yeoman recognized attestation as one of the conditions attached to his becoming a Militiaman; he knew the penalties attached to false statements were reasonable and not to be apprehended by any well-meaning soldier. All these changes, whilst perhaps insignificant to the Regular, amount to a good deal in the case of a civilian, whether officer or man, who is dependent for his livelihood on his business; and

has, in order to serve the State, to give up the greater part, and in many cases the whole, of his annual holiday.

It is claimed that under the last change which has been imposed upon the force by the Territorial Forces Act greater efficiency will be obtained from it, but it is open to consideration whether we had not already arrived at approximately the maximum amount of time which the civilian can give for military service. Adding together the days of training, squadron drill days, musketry days, and such time as is given to troop drills and signalling, extra practice at musketry, map drawing and lectures on various subjects, the Yeoman would not be very far out if he claimed that he is giving twenty-four days in the year to military duty; that is to say, allowing for Sundays and Saturday half-holidays, pretty nearly one month out of the twelve. Can he be expected to give more than this? If he cannot, are there any changes which can, without calling for more time from him, make him more efficient? I suggest that there are certainly two, but they will cost money. I think if the men could be produced at the commencement of camp better trained than they are now, better horsemen, better horse-masters, and with more knowledge of elementary drill, then some of the time which now has to be given up to elementary mounted drill could be utilised for higher education; but to do this two things are necessary: in the first place the men must have better facilities for mounted drills than they had even under the regulations of 1901, by which they drew some pay for squadron drills, and, in the second place, the junior officers must have better opportunities of being properly educated than they have had of recent years, and much better than are apparently contemplated. I say it with great regret, but it is the result of experience, the young officer does not receive the thorough education in troop and squadron drill by going to a Regular regiment that he did when the Yeomanry School existed; and the reason is obvious. Skill in successfully imparting one's own knowledge is not given to everyone, and it may well happen

that an officer, though a brilliant troop and squadron leader, has not the knack of successfully imparting his own knowledge to others. Consequently it may happen that in a regular regiment to which a young Yeomanry officer is attached there is not one officer with that knack. I had the good fortune to be at the Yeomanry School under Captain Percy Barrow, and his system of tuition was absolutely thorough. If his pupils were not turned out efficient troop leaders, it was not the fault of himself and his staff. That is one thing that is necessary for the young Yeomanry officer, the other is that he himself must try to find the time to be more often present at troop drills.

As regards mounted troop drills for the men, it must be remembered that many of them now can only mount themselves for a troop drill by hiring: the grant for equitation about suffices for riding school for the recruits and poor riders. The pay which Mr. Brodrick gave for squadron drills has under the new regulations been taken away; so that to mount himself for troop and squadron drills the Yeoman will in many cases have to pay the cost of hiring out of his own pocket. If he cannot or will not do so, obviously he will not come up for training any better educated than he was under the regulations of 1901—possibly not so well.

If these improvements which I suggest in the elementary training of officers and men can be brought about, then undoubtedly the colonels and brigadiers will be able to make better use of the days of training than they can now.

It has been stated that permanent training squadrons are to be established in every command, and that these will be the schools to which the young Yeomanry officer will be sent. I can conceive these training squadrons being quite effective schools if the squadron leader is himself a competent educationist, but, knowing pretty well what the demands of the Regular Army are on a squadron leader's time, I cannot help entertaining some doubt whether what is expected of these training squadrons will be realised.

I have not attempted in these few pages to comment upon the changes which have been introduced by the Territorial Forces Act; the pages of this Journal are not the most appropriate place for a critic who is still subject to military restrictions, but it is permissible to point out that the supply of officers is the key to the whole situation. Unless the troop has got an officer, and one who shows interest in it, it will inevitably fall off in numbers; some commanding officers have had to content themselves with what they could get in the way of officers, seeing that there have not been the number to enable them to pick and choose, and I do trust that the authorities will do all that they can to encourage young gentlemen with a little time to spare to take commissions. I do not think that either under the old regulations or under the new there is enough encouragement given. Really keen officers anxious to make themselves efficient in their military duties have been told peremptorily that they must either suit the convenience of the school to which they wish to go or they cannot go at all. Now, their time in many cases is not their own: they are dependent upon the goodwill of their partners or their superiors in their business for getting enough time to put in attendance at the Signalling School or at Hythe, or with a regiment or at autumn manœuvres. Very often the month in which they are told they can attend is impossible for them because it does not suit the convenience of their partners or superiors, and in these cases they have had to go without the training which they were anxious to subject themselves to. That is no encouragement; it is distinctly discouraging, and it becomes known.

I sincerely hope that the facilities promised may really take form, for without this important change I am not hopeful that there is anything in the conditions of service in the Territorial Army likely to prove more attractive to the class from which the young officers of the Territorial Army should be drawn than there was when we were Yeomanry Cavalry, or when we were Imperial Yeomanry.

MOUNTED COMPETITIONS AT THE ROYAL NAVAL AND MILITARY TOURNAMENT

BY MAJOR R. M. POORE, D.S.O., *7th Hussars*

The improvement in skill-at-arms brought about by the Tournament—The correct method of performing Heads and Posts—Observations on Lemon Cutting—Mounted combats—Criticism of these competitions at the Tournament—Suggestions as to practice for all combats—Notes on judging competitions.

WHEN the Royal Military Tournament was started twenty-nine years ago the intention of the promoters was to improve skill-at-arms generally throughout the whole Service. There is little doubt that in the course of the years that have followed the Tournament has in this respect alone justified its existence, and the original promoters might well be proud at the result of their efforts, as evinced by the widespread improvement in the skill of all ranks and branches of the Service in the use of their weapons.

In the following article I propose to consider briefly the skill-at-arms of the mounted man and to refer to some of the questions which have formed the subject of discussion and have been the cause of some doubt amongst those who are anxious to improve themselves in particular, and swordsmanship in general, throughout the Service.

Heads and Posts, Lemon Cutting, and Tent-pegging are competitions which have been practised for many years, but few seem to have regarded them in any light but as a source of amusement, and their utility was often not considered.

Tent-pegging, which was, I believe, instituted by the Bengal Cavalry, and at which native horsemen are such adepts, forms

*We are indebted to Major D. Hall, 1st Life Guards,
for his assistance in securing these photographs.*

THE CAVALRY JOURNAL—No. 11.

**THE MUSICAL RIDE—1st LIFE GUARDS.
ROYAL NAVAL AND MILITARY TOURNAMENT.**



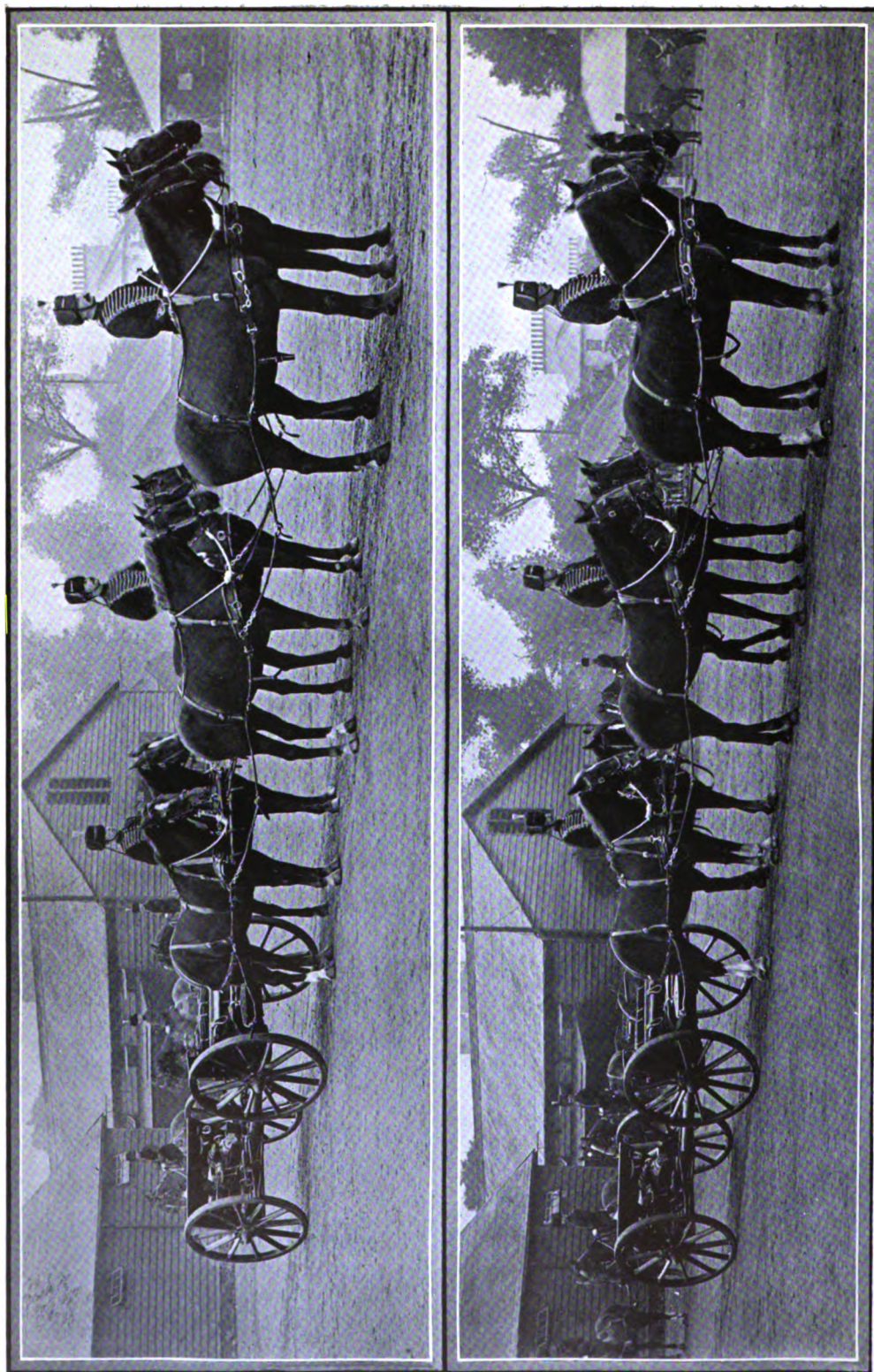
Photographs by

Gale & Polden.

We are indebted to Major A. D. Young (Commanding) for kindly making all arrangements for these photographs.

THE CHESTNUT TROOP, ROYAL HORSE ARTILLERY.

THE CAVALRY JOURNAL—No. 11.



The Musical Drive by the Chestnut Troop at the Tournament demonstrated the advantages of a systematic training of draught horses in the Riding School.

a pleasant means of encouraging soldiers to become proficient in the use of the lance, and, above all, to control the direction of the point.

Nearly all mounted men are armed with the sword, and for this weapon Heads and Posts and Lemon Cutting act in the same way as Tent-pegging does for the lance.

The proposed new Cavalry sword, which has been designed by the Cavalry Sword Committee, is so shaped as to be a first-class pointing weapon. Anticipating the introduction of this sword, Heads and Posts was changed a few years ago from a cutting exercise to one which only allowed pointing—strong, straight, and good points being essential. This practice brings into play the qualities necessary when troops break up and circle round one another. There are many prominent Cavalry soldiers who do not believe that such a *mêlée* will ever occur, which opinion may very possibly be right; but as long as the Cavalry training lays down that the 'break-up' is to be practised, Heads and Posts is a good means of teaching men what they should do under such circumstances.

To perform Heads and Posts properly the sword should be brought to the engage with the point directed towards the object to be attacked, the sword and forearm in one line, the elbow slightly bent and a little in front of the right side. The body should be allowed to come slightly forward from the hip at the same time as the point is delivered by straightening the arm.

The engage referred to above differs from that which should be used when galloping, as in the latter case the arm should be kept extended and the body bent slightly forward, an attack delivered in this way being most difficult to parry, and, if parried, an effectual return is hardly possible except, perhaps, by a particularly good swordsman.

Now we come to Lemon Cutting, which is intended for advanced swordsmen who have been passed as proficient in all the pointing exercises laid down, and can be trusted to use the cut only when it is really necessary.

A number of people have severely criticised the wisdom of teaching the ordinary soldier to use the point only, but a very useful lesson bearing on this question may be drawn from the practice of Lemon Cutting, showing that little damage can be looked for when cuts are delivered.

Even at the Royal Naval and Military Tournament, where the most proficient men of the Army assemble, a number of lemons are hit with the sword, but not *cut through*. Such cuts will not be more successful in penetrating clothing, and better results cannot be expected from the ordinary rank-and-file.

In the performance of these three events at the last Royal Naval and Military Tournament the standard of skill was not as good as it might have been, and still leaves a great deal of room for improvement.

Now to pass on to mounted combats. The mounted combats (Sword *v.* Sword and Sword *v.* Lance) have probably advanced to a much higher level than could ever have been foreseen. Up to a few years ago the fights were long and tedious affairs; but with the advent of the time limit and better fighting rules governing the actual combats, particularly in giving marks in favour of the man who attacks, the fighting has considerably improved. The recent Tournament has, however, shown that advancement can still be made. Now that combatants realise that so much depends on attacking, a great number attempt nothing but this mode of fighting, with the result that both opponents too frequently attack at the same time with the sword extended, constant counters, or double hits, being the obvious outcome. This, of course, can be done without any display of swordsmanship, and is much to be deprecated.

Better fighting was seen at the last Tournament among the men of those regiments where proper instruction had been given. There is also too great a tendency for a man to 'time' his opponent, and this cannot be too severely criticised. 'Timing' is holding out the sword for the opponent to run on to it

when the latter has commenced the attack, and is resorted to in preference to making a parry.

In Sword *v.* Lance the latter weapon is still giving trouble. Some form of collapsible lance is wanted, but those used during the last Tournament were much too large to allow of their being practically handled. However, no doubt this will be soon satisfactorily adjusted.

During the last Tournament some of the fighting by the N.C.O.s and men showed a distinct improvement, but it is to be regretted that the same cannot be said of the officers' competitions. Form shown in the championship class was distinctly good, and better than ever this year.

It should be remembered that in practising for all combats, whether mounted or dismounted, it is very necessary to vary one's play in order to acquire that control of one's weapon and readiness of decision and execution that are so essential for a swordsman (the word is used in its wider sense as covering the use of all weapons of attack and defence). For this reason it is very advisable to practise attacks, parries, returns, &c., that at first sight do not appear likely to be often wanted. A slight change in the position of one's own or the opponent's horse alters the conditions so absolutely that the moment for the employment of one or other of the less usual attacks, &c., comes and goes so quickly and so frequently that, unless one is ready with one's mind and one's weapon, the chance has come and gone again before it has been appreciated. With a beginner, and for the teaching of the mass of men, the attacks, parries, &c., can hardly be too simple ; but, as the skill of the individual improves, other methods should be practised, although the wise man and the skilled swordsman confines himself in actual combat to simple methods for his general fighting, and makes use of the more unusual methods only when occasion demands.

For judging mounted combats the referee and the judges should be well versed in all the niceties of fighting, and should sometimes practise these events themselves, so as to be able to

extend that sympathy so necessary to the combatants. A referee can exercise a good deal of control over the fighting by the use of tact, but at the same time should never handicap combatants by ordering them to employ any particular mode of attack or defence, or actually order any combatant to make an attack.

Another point to be carefully considered is to prevent any dangerous riding, and experience has proved that the best way of doing this is to put a stop to competitors, when riding at a canter, from even slightly colliding with the opponent or his horse, under a penalty of disqualification for that bout, or even that competition.

In closing, it may be urged that combats should be conducted in a thoroughly sporting spirit, and it is pleasing to note that this feature is improving. As a rule, I do not believe in mentioning names, but S. S. M. Cooper, 11th Hussars, and others stand out as fine examples of really honest and sporting fighters, quick in cheerfully acknowledging defeat and modest in victory.

THE NEW GERMAN REGULATIONS RELATING TO RECONNAISSANCE AND PROTECTION

The Regulations of 1900—General v. Bernhardi's views—Composition of the Army Corps and Cavalry Divisions—The Regulations of 1908—The relation between Reconnaissance and Protection—Reconnaissance by Army Cavalry, Divisional Cavalry, and other arms—Protection—Screening.

IN March last the new Field Service Regulations (*Felddienst Ordnung*) were issued to the German Army. We propose to consider now the Regulations relating to reconnaissance and protection, in which important changes have been made. The changes effected in other subjects may be considered in a later number.

In the Regulations of 1900 no very clear distinction was drawn between these two services; it was not recognised, at all events in the Regulations, that there were great difficulties in throwing on one body of men the double burden.

In 1899 that distinguished writer, General v. Bernhardi, first published his book 'Cavalry in Future Wars,' which was followed three years later by a second edition. In this he pointed out that fundamentally different arrangements are necessary in order to obtain information and maintain security. He added that any one who attempted to entrust the provision of intelligence and the protection of troops to one and the same body of men would in the vast majority of cases fail to secure either purpose as long as the enemy's mounted forces still held the field. He added elsewhere: 'We must fight to reconnoitre and fight to screen, and only a systematic division of the two spheres of action can give us the necessary freedom.'

When reading the new Regulations it is well to bear in mind that the Imperial German Army comprises, besides the Guard Corps, which consists of two Divisions, and the Guard Cavalry Division of four Brigades of two regiments each, twenty-two Army Corps, each consisting, with two exceptions, of two Divisions, which are composed, with a few exceptions, of two Infantry Brigades, one Cavalry Brigade, and one Field Artillery Brigade. Five Divisions have three Infantry Brigades. Each Cavalry Brigade consists of two regiments, each of five squadrons in peace and four and one depôt squadron in war. The Horse Artillery attached to each Cavalry Division consists normally of two batteries of six guns each.

Cavalry in the field are divided into Army Cavalry (*Heeres-Kavallerie*) and Divisional Cavalry. Two or more Cavalry Divisions may be grouped together as Army Cavalry, while the Divisional Cavalry of each Division consists of one regiment. Protective Cavalry are not recognised as a separate force, but their duties are, as will be seen from the Regulations, carried out to a great extent by the Divisional Cavalry.

The main provisions of the new Regulations, so far as they relate to Reconnaissance and to Protection on the march, are as follows :—

THE RELATION BETWEEN RECONNAISSANCE AND PROTECTION

Reconnaissance and Protection require entirely different methods of action. The troops employed for protective purposes are in close touch with, and regulate their movements by, the troops whom they protect, while the troops engaged on reconnaissance must move freely over the country, and regulate their movements by those of the enemy. If one unit is required to perform both duties, special functions will be allotted to different parties.

Thoroughly good reconnaissance ensures a certain measure of security, while in the same way the efficiency of the protective service may greatly assist the work of reconnaissance. The one

is the complement of the other, and there is no sharply defined border-line between the two.

It is of primary importance that the hostile Cavalry should be driven from the field as soon as possible, and a complete moral superiority attained. *All Cavalry units, even patrols, must therefore, whenever their mission and the situation permit, attack the enemy's Cavalry whenever they may be met.* By such methods the work of reconnaissance will be expedited and placed on a sound footing during the remainder of the operations. The service of protection also will thereby be considerably lightened.

RECONNAISSANCE

General Principles.—It is the duty of every leader of troops, whether of high or subordinate rank, to make himself thoroughly acquainted with everything which happens in his vicinity, and which can in any way influence his action.

Reconnaissance is in the main the work of the Cavalry, which has here a wide field of usefulness. Cunning, versatility, knowledge of tactics, a quick eye for a situation, resolute riding, and action are all brought into play. The leader of every rank, as well as the individual troopers, will each and all find rich opportunities for distinction.

The results of the reconnaissance do not wholly depend upon the action of individual parties and patrols. They are really dependent upon the proper co-ordination of the whole service, a systematic organisation of which is necessary in order to save waste of energy.

Reconnaissance by the Army Cavalry.—In the operations of armies the duty of reconnaissance is handed over to the Cavalry Divisions, of which several may, if necessary, be united under the command of a single leader. They receive their orders from the head of the army. A larger body of Cavalry than a division may be attached to a single Army Corps.

The Army Cavalry must endeavour to ascertain as early as possible the conditions prevailing with the enemy. It must also

do its best not only to drive the opposing Cavalry off the field but also to force back or break through any units of all arms which may have been pushed forward, and must advance right up to the vicinity of the hostile columns. Reconnaissance must be carried through even when the army is unsuccessful.

If it is necessary to send the patrols so far forward that they cannot be supported from the main body of their units, reconnoitring squadrons must then be pushed forward, must detail the patrols, and, under certain circumstances, facilitate their progress by force of arms.

The duties of these squadrons include the sorting out of all the reports which are constantly coming in as well as the arrangements for their prompt and safe transmission. These squadrons must be on the alert at night. Frequent change of bivouac, especially in the presence of the enemy, ensures increased security. Each commander is responsible that his squadron is not surprised. The squadrons are not tied to any particular spot, but must not wander from the tracks of country which are told off to them. They must always be where they can be found, not only by the patrols, but also by despatch riders from superior commanders. The particular tracks of country told off to the reconnoitring squadrons and distance patrols will usually be allotted according to the roads by which they are traversed. The commander who requires his reconnaissance to be carried out efficiently, and his patrols to be well supported, will not, as a rule, expect a single squadron to cover a breadth of more than nine to twelve miles of country.

The reconnoitring squadrons are usually augmented by the attachment of officers patrols. The superior commanders have power to confide special missions to some of these patrols. By command of the officer directing the reconnaissance, selected officers patrols may be sent in a direction quite different from that which is to be covered by their reconnoitring squadrons.

Reconnoitring squadrons must invariably be connected with Headquarters—if possible by some 'technical' means. Cyclists

may be used for this purpose with great advantage. The Army Cavalry should be connected up in rear, preferably by wireless telegraphy. If it is not possible to establish direct connection between the Cavalry main body and the reconnoitring squadrons, or if the reports from the different reconnoitring parties can be brought in by the same road, relay posts must be organised.

As the work of reconnoitring progresses, the formed Cavalry bodies advance from one area of country to another. When the advance is made in several columns, unity of action must be secured by proper organisation of the march and the use of staff officers.

If, as the enemy is more closely approached, the carrying out of the mission allotted to the reconnoitring squadrons becomes impossible, both the reconnoitring squadrons and the relay posts must cut themselves adrift and endeavour, by moving round the enemy's flanks, to carry out their original intention.

Reconnaissance by the Divisional Cavalry.—The main work of the Divisional Cavalry is reconnaissance in the immediate front, and the presence of Army Cavalry does not relieve them of this duty ; but where there is no Army Cavalry, then reconnoitring to a distance also falls to them. In exceptional cases they may send out reconnoitring squadrons.

The Divisional or Army Corps commander states the reconnoitring work which he wishes done ; the Cavalry commander is responsible for the manner of its execution. The sending out of patrols rests as a rule in his hands. If the commander should himself send out patrols, he should inform the Cavalry commander of the fact and of the orders given. In the event of the Cavalry commander receiving no instructions, or if he unexpectedly finds himself confronted by an entirely fresh situation, it is his duty of his own accord to 'carry on' in the spirit of his superior's orders.

On the march, the main body of the Divisional Cavalry should, as a rule, only be sent so far in front of the Infantry

that touch and, if necessary, co-operation with them is not interrupted. In action, Divisional Cavalry must be especially active, since, besides taking its share in the action, there falls to it not only the reconnoitring of the enemy's flanks, but the security of the flanks of its Division.

In an Army, Corps it may, under certain circumstances, be of advantage to employ the Cavalry of the two Divisions united, but at least one squadron must remain with each Division.

Reconnaissance by other Arms.—When the fire action of the enemy or the nature of the country restricts the efficiency of the Cavalry, Infantry patrols will have to carry out reconnoitring duties. These are set out in sections 148-153.

It is the duty of the balloon detachment to establish the advance of the enemy, the concentration and extension of his forces, the deployment of his Artillery, the presence of concealed gun positions, as well as the position of reserves, emplacements, etc. It must keep the commanders informed from time to time as to the relative situations of friend and foe. The balloon detachment makes its own arrangements for connecting with the commander either by telephone, orderlies, cyclists, etc. Reconnaissance from the balloon is limited by weather and atmosphere; only under very favourable conditions can observations be made beyond a radius of four and a half miles. Dirigible balloons, it is laconically remarked, are of the greatest service for purposes of reconnaissance.

PROTECTION

General Principles.—With a mixed force of all arms the service of protection falls mainly upon the Infantry; they should, however, be supported by the other arms. The general situation, their own numbers, and the distance from the enemy are the only guides as to the strength and composition of the troops who are to be responsible for protection.

Advanced Guard.—Even when their own Cavalry is in their front, detachments of all arms invariably throw out an advanced

guard for their protection on the march unless hostile interference is quite out of the question. The duties of the advanced guard are practically the same as those laid down in our own manual.

It lies with the commander of the force to decide whether the Divisional Cavalry should remain absolutely under his own hand or be attached to the advanced guard. In the latter case, the O.C. advanced guard must be informed of the general object of the reconnaissance, and he will then give the Cavalry specific instructions. It may, on occasions, be desirable to send forward the Divisional Cavalry to occupy important points on the line of march or to hold a defile. On such occasions Infantry, cyclist detachments, machine-gun batteries, and even Artillery could afford them useful support. Even when the Divisional Cavalry is not sent forward from the start for reconnoitring or other purposes, the greater portion should precede the Infantry, so that the march of the main body may not be checked, and that they may get increased rest. Circumstances may at times require the Cavalry to be withdrawn in rear of the Infantry and employed in another direction, for instance, as flanking patrols or flank guards.

The Cavalry required for duty as orderlies, and for the actual security of the troops, must be apportioned to the advanced guard and the main body, and neither force of Cavalry must be too weak. The protection of the flanks necessitates, as a rule, the sending out of special flanking patrols. In case any unexpected occasion may arise for additional reconnaissance, mounted men should always be available both with the advanced guard and main body.

The considerations which govern the strength and composition of the advanced guard, as well as the interval between it and the main body, are practically the same as those which are detailed in our own manual. Under certain circumstances the chief part of the advanced guard may consist of Cavalry, while Field Artillery will be attached to the advanced guard of large bodies. Sappers, as a rule, march with the advanced guard, and

in addition to them it may be necessary to attach a balloon detachment, pontoons, or a section of the medical corps.

The advanced guard is divided into a van guard and main guard. The van guard consists of Infantry, the necessary body of Cavalry, and, when required, the sappers; the main guard: the bulk of the Infantry, the Field Artillery, and, when they are not accompanying the van guard, the sappers. In the majority of cases, and, if the nature of the country permits, the interval between the van guard and the main guard will be from 1,100 yards to a mile; with a small advanced guard the distance must be sufficient to prevent the main guard being suddenly fired on at effective range.

A strong van guard will usually have a company as a point from 400 to 500 yards to the front. At the same or a greater distance in front of this is the Infantry point, and in front of this the Cavalry point, or the Cavalry of the van guard with its point may be pushed forward. The advanced Cavalry in front of the Infantry point may be dispensed with if specially ordered. The Infantry point consists of an officer and at least one group (eight men), and marches either in a formed body or extended on the road. The Cavalry point consists of a leader and several troopers.

Theoretically, the commander of the larger unit is responsible for keeping touch, but the smaller units must give him all the help they can as soon as they see that it is becoming difficult to keep up connection. Connection may, as a rule, be maintained by files of Infantry or by cyclists.

Flank Guards.—The security of the flanks during a march is chiefly ensured by means of patrols, but, when these are insufficient, parties to cover the flank must be detailed. This will usually be given in orders, but they may also be thrown out while the march is in progress. Parties to cover the flank may be sent out from the van guard, the main guard, or even from the main body. These parties either march alongside the column which they are protecting, or take up a position, allow

the column to pass, and then follow in rear. Should the forward march become a march to a flank, it may be of advantage to use the advanced guard as a covering party for the flank and to detail a new advanced guard from the main body. The strength and composition of these flanking parties depend upon the extent to which the flank is threatened and upon the nature of the country. The need for thorough reconnaissance and the maintenance of connection requires that Cavalry should be attached. On the march these parties protect themselves in front and on the exposed flank in the same manner as an advanced guard, and it may often be necessary to safeguard the rear as well.

While flanking parties prevent the movement being hindered or checked, they may also facilitate the future extension and afford the commander the opportunity of seizing the necessary space for extending his front and, under certain circumstances, for outflanking the enemy.

Rear Guard.—A rear guard secures a retreating force against attack and interference. It must not count upon support from the retreating main body, and its strength and composition must be calculated accordingly. As a rule, a strong force of Field Artillery should be attached, and, for fighting and reconnaissance, Cavalry ; sappers also when the circumstances require it. Where possible, the freshest troops must be employed.

If the troops have been fighting, the rear guard must in the first place engage the enemy in order to secure the orderly retirement of the main body, and to this end must sacrifice itself, if necessary. The rear guard, if not forced to maintain a fighting formation, marches in column of route, and retires by small parties at a time, and so that, if possible, it is covered and protected during its halts by the lie of the ground. The interval between it and the main body must be sufficient to prevent any interference with the march of the latter.

Artillery and machine-gun fire may often, without the Infantry of the rear guard becoming engaged, force the enemy to extend, and thus gain time. The rearward movement can

then be resumed without attracting notice, and the mounted arms soon recover the start given to the Infantry. A skilled rear guard commander will know when to assume the offensive in order to gain a moral effect. By using strong bodies of Cavalry with Horse Artillery against the flanks of the pursuers the retreat will be greatly facilitated, and at the same time the flanks of the rear guard duly protected. The Cavalry should chiefly be on the look out for any attempts to turn the flanks.

In order to delay the pursuers, roads may, where suitable, be blocked and bridges destroyed. Sappers may be sent forward to prepare such works.

On the march the rear guard is divided into main guard and rear guard, and Cavalry is attached in the same proportion as in the case of the advanced guard. Whether a Cavalry point is required in addition to the rear company of Infantry and Infantry point (or cyclists) depends on circumstances.

Protection of Cavalry on the March.—Every body of independent Cavalry, as also Cavalry of an advanced or rear guard, protects itself on the march in the same way as a mixed force. In the case of large forces, Horse Artillery and machine guns may be attached to their advanced or rear guard. In the case of small forces, it is not advisable to divide them too much, and where there are only one or two squadrons one point is sufficient. Sappers are usually carried in waggons with the main body.

A point is composed of a leader and from four to eight troopers, and moves as a patrol. The leader gives orders as to how the lances or carbines should be carried. A few troopers from the van guard keep up connection.

The security of the march depends in great measure upon the efficiency of the patrols, whose numbers and strength must depend upon the strength of the Cavalry, the nature of the country, and the general situation. Flank patrols should move along the more important and parallel roads, if no other troops are marching along them, and regulate their march by the main column. On a march of any length the flank patrols should be relieved from time to time. Connection on the march will usually

be from rear to front, but any deviation from the original direction of the march should be reported from front to rear.

The whole efficiency of the service of protection depends upon all ranks being permeated with the offensive spirit. They must frequently employ fire action.

SCREENING

The screening of the movement of any force may be required to be carried out either from the front or from the flanks, and may be attained by offensive or defensive methods. For offensive screening a strong Cavalry force must be concentrated which must endeavour to keep the enemy at a distance from the army to which the Cavalry themselves belong. Strong patrols and cyclist detachments must press forward by every road, attack and drive back the hostile patrols. The defensive screen, however, more effective, inasmuch as it confines its reconnoitring to a few main roads. These are then blocked and defended by the fire action of Cavalry aided by machine guns. In rear of these, and at certain favourable points, stronger Cavalry detachments are posted ready to fall upon the enemy should they succeed in breaking through the first line. Steps must be taken to ensure quick connection both with the front and with the commander, and reconnoitring parties must be pushed far to the front. Cyclists and advanced parties of Infantry can add greatly to the defensive power of this method of screening. Screening by means of Infantry alone will be required when the lie of the ground cramps or prevents the action of Cavalry.

Especial care must be taken to prevent the enemy from sending back intelligence. Hostile patrols which have obtained any information, as well as the despatch riders, must be resolutely followed, while the enemy's telegraph lines must, if possible, be cut.

In addition to its other duties, the Divisional Cavalry must be ever on the *qui vive* to screen the movements of the force to which it belongs.

BERTRAND STEWART, *Lieut.*

London, July 1, 1908.

NOTES

HOME

Cavalry Exercises.—The following are the arrangements for the Cavalry Brigades on Salisbury Plain :—

<i>Pond Farm</i>		<i>West Down North</i>	
2nd Cav. Brig.		1st Cav. Brig.	
Brig.-Gen. H. D. Fanshawe.	} 2nd D.G. 2nd Dragoons. 20th Hussars.	Brig.-Gen. Hon. J. H. G. Byng, C.B., M.V.O.	} 21st Lancers. 7th Hussars. 16th Lancers
Major D'A. Legard.		Major W. H. Greenly, D.S.O.	
4th Cav. Brig.			
Brig.-Gen. E. G. H. Allenby, C.B.	} 5th Lancers. 8th Hussars. 19th Hussars.	Household Brigade.	} 1st L.G. 2nd L.G. R.H.G.
Major R. L. Mullens.		14th Brigade R.H.A.	
7th Brig. R.H.A.		Colonel E. J. Phipps-Hornby, V.C.	
Col. P. H. Enthoven.	} I Battery. L Battery.		} Z Battery. AA Battery. BB Battery.
3rd and 5th Field Troops R.E.		1st Field Troop.	
July 24 to August 28.		August 17 to 28.	

From July 24 to August 16 the 2nd and 4th Cavalry Brigades will be engaged in brigade training, and from August 17 to 28 the four brigades will take part in the Divisional Exercises.

The Cavalry Division will be under the command of Major-General H. J. Scobell, C.B., the Inspector of Cavalry.

The Skeleton Force will be under the command of Major-General E. C. Bethune, C.B.

Strength of Yeomanry, July 1.—The 56 Yeomanry Regiments have all been recognised as units of the Territorial Army. The strength on July 1 was : Officers, 1,169 ; establishment, 1,500. N.C.O.s and men : strength, 20,586 ; establishment, 24,868. We understand that some regiments have recruited up to their establishment numbers and that the Ayrshire Horse Artillery Battery is complete.

FOREIGN

Austria.—Horse Artillery.—Each Cavalry Division, which consists of two brigades, each of two regiments, both of which are divided into two wings of

three squadrons each, is to have attached to it a three-battery brigade of Horse Artillery. Each of these batteries will be four-gun batteries.

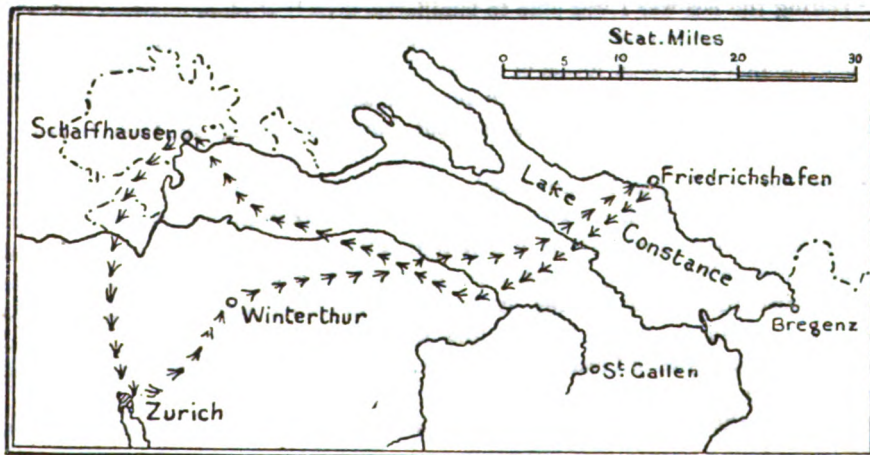
Germany.—The Armament of the Cavalry.—Under the heading of 'The New Side-Arm and the Cavalry Carbine,' the following statement appears in the *Wiesbadener Tageblatt*: 'We hear on military authority that the Army administration has no intention whatever of withdrawing either the sword or the lance as weapons for use at close quarters. The former, which is carried on the saddle, will continue to be carried by the units engaged in the trials which are now taking place. The short side-arm, which, as with the Infantry, would be carried in a frog on the left hip, is under consideration as a *fourth* weapon for the mounted man. The new carbine, which has been issued to different Cavalry regiments for trial, is fitted with a different arrangement of sights and allows of a bayonet being fixed. The present system of carrying the carbine on the off-side of the saddle having been found impractical, a new method of attachment is being tried. Up to the present it appears to be thought that the carbine is best carried slung across the rider's back. So far as is yet known the forty-five rounds of ammunition will for the future be carried in three pouches worn well to the front.'

The *Allgemeine Schweizerische Militar Zeitung* states that the present carbine of the German Cavalry is to be replaced by a longer carbine sighted up to 2,000 metres. The new carbine has already been issued to a certain number of regiments. It will fire the same cartridge with the S bullet as the infantry and machine guns. One form of cartridge will thus be universal throughout the Army. It has already been issued to a certain number of regiments.

The 'Manœuvre Regulations,' which were issued in March last as a second volume to the 'Field Service Regulations,' are very comprehensive, and should certainly be studied by any officer attending German manœuvres.

Field Service Uniform.—The new uniform has been issued to some regiments, and a full description, which a correspondent has sent us, will be included in the next number.

Count Zeppelin's Airship.—The following small map, showing approximately the line taken by this airship during its recent flight, may be of interest:—



France.—Military Airship.—A French correspondent of *The Times* states that the new French dirigible balloon, which is almost exactly similar to the *Patrie*, which was lost in the North Sea, is now quite complete. Extended trials are being carried out and will be continued until the military administration has taken over the aërostatic material. It can be raised by its inclined planes to 2,000 metres.

Italy.—Experiments with Wireless Telephones.—A Milan correspondent of *The Times* states that official trials of the De Forest wireless apparatus for telephonic purposes have recently been made in the presence of the officials of the Dockyard and of delegates of the Minister of Marine and War Office. For this purpose the *Partenope*, of the Royal Navy, with Mr. De Forest and the delegates of the War Office on board, put to sea in a direction towards Genoa. The apparatus installed in the *Partenope*, in a special covered cabin, allowed communication with that in the *Eridano*, which remained at anchor at the Dockyard, and in which the electrical engineer in charge and the technical officials of the Ministry of Marine were stationed. Communication was maintained constantly, even when the vessel passed the chain of mountains which encloses the gulf on the eastern side; also at intervals several cannon were fired to ascertain if atmospheric disturbances had any influence on the working of the system. At a distance of twenty miles (the greatest distance tried) telephonic communication was regularly maintained. The results were such that this apparatus will be installed in some of the vessels of the fleet.

Switzerland.—A set of portable wireless telegraphic equipment is to be provided for the headquarters of the Cavalry Division.

Russia.—The Bayonet as a weapon for Cavalry.—In view of the fact that the bayonet is also under consideration in Germany as a weapon for Cavalry, it may be of interest to quote from an article written recently by a Russian officer to the *Ruskii Invalid*. The Dragoons, as will be remembered, were armed with the sword, carbine, and bayonet, while the Cossacks carried no bayonet.

‘There is no doubt that in all future wars, wherever the theatre of operations may be, a large share will be given to dismounted action by Cavalry; it is therefore of importance to give Cavalry as perfect an armament as possible.

‘During the last war I was able to familiarise myself at close quarters with the organisation and action of the Infantry Mounted Scouts of the 1st Army Corps and commanded a Cossack sotnia of the 1st Tchita Regiment. The Scouts, armed with rifle and bayonet, considered themselves as disarmed for mounted action, and immediately asked for swords, without, however, giving up their bayonets for them.

‘The Cossacks frequently expressed to me the desire to have bayonets, as they had no confidence in their *cachka* (a sword similar to that in use in the Russian Cavalry, but without a guard) for dismounted action against the sword-bayonet of the Japanese Infantry. I should mention that I took over command of this sotnia towards the end of the war, at a time when, having worked on many fields of battle, the Cossacks of the Tchita Regiment had great war experience, and I therefore conclude that a Cavalryman requires a sword for mounted and a bayonet for dismounted action.

‘I know nothing about bayonet fighting and did not take part in any bayonet

fights during the war, and am therefore not able to express an opinion on the best form of bayonet. That is, however, a matter of secondary importance. Bayonet fighting will be an exception for the Cavalryman fighting on foot; it will suffice then to provide him with some sort of bayonet to fasten on the end of his rifle, in order to explode the idea of the superiority of the hostile Infantry in close fighting. If they have not got some such weapon the skirmishers fighting on foot will on the approach of the enemy begin to cast anxious looks towards the led horses, and the commanders will not dare to pursue the fire action to its extreme limit.

'It appears to me that a sort of bayonet should be adopted which would do more than meet with the necessities of the fight. A knife-bayonet would have many advantages from the point of view of a soldier's daily life. A weapon of this nature would be most useful to a mounted man, often separated for a long time from his troop, and left to his own resources. In order, therefore, to avoid giving the appearance of an Infantryman to the mounted soldier, the latter might be given a bayonet in the form of the *kinjal* (a Caucasian dagger with a straight, two-edged blade), which would do away with a feeling of inferiority when dismounted. Another result of the adoption of this knife-bayonet would be the possibility of carrying the sword on the saddle. This measure has been adopted by almost all European armies, and there is no necessity to lay stress on its advantages, such as lightening the horseman, greater liberty of movement in dismounted action, the difficulty of the enemy perceiving if they are opposed to dismounted Cavalry or to Infantry, &c.

'The only objection that can be made to the adoption of a knife-bayonet is its weight. The German sword-bayonet weighs about $17\frac{1}{2}$ oz. without the scabbard, the Austrian about $10\frac{1}{2}$ oz. without the scabbard, the Italian about 10 oz. without the scabbard, and the Russian Dragoon bayonet about $9\frac{1}{2}$ oz. only.

'In deciding on the model of bayonet for adoption by the Cavalry, great attention should be paid to its lightness; a sensible increase of weight to the present bayonet would be inadmissible, but a slight increase might be permitted if it augmented its utility.'

Cyclists in French and German Armies.—Major Immanuel, 156th Regiment, in an article in *La Revue Internationale*, gives a certain amount of information as to the organisation of cyclists in the French and German armies, and subsequently discusses the rôle which the consensus of opinion in these countries allocates to the cyclist in warfare. France possesses five Cyclist Companies (formed from Chasseurs à Pied Battalions), amounting in all to twenty officers and 600 men, with a war establishment of twenty officers and 875 men. Germany, on the other hand, has no organised cyclist units, but every Infantry regiment has nineteen cyclists on its strength. On manoeuvres, or in war time when thought advisable, a large percentage of these will be taken away from their respective companies and formed into a composite cyclist company of about 120 strong, each Army Corps forming one such company.

According to Major Immanuel the theory of the employment of cyclists both in France and Germany is based on an hypothesis, which we in England—at all events for home defence—cannot admit, namely:—'Paucity of roads or state of

the weather may easily render cyclists far less mobile than Cavalry, reducing them even to the speed of Infantry. Working on this hypothesis, both countries are loth to hamper their Cavalry Divisions with a cyclist unit which might impede their independence of action. In Germany, therefore, cyclists may be called upon either to serve with their respective companies as despatch riders, or else to form part of a provisional Army Corps company of cyclists at the disposal of the G.O.C. to act as Army Troops, Divisional Troops, or as the G.O.C. may direct, liable to redistribution from day to day.'

France is still in the experimental stage, and has not decided upon any fixed rôle for the few cyclists she possesses. These, moreover, are handicapped by being armed with an inferior weapon (the French Artillery carbine) and by being supplied with a folding bicycle.

It would appear that neither the French armament and equipment, nor the German lack of organisation, would tend to produce cyclist units of any great value, but there is evidently a school of military thought in both countries which looks to the cyclist to accomplish great things.

Major Immanuel concludes his paper with a statement which seems equally open to challenge as the hypothesis on which he reasons throughout. He states: 'War in the future will be a matter of big battles—battles so big that they could in no wise be influenced by the action of small cyclist detachments numbering only two or three hundred rifles.' One would remind the author that the action of a few men at the right time and at the right place may have a greater effect upon a battle than the ill-timed or out-manceuvred co-operation of a large force. The action of Orloff's Detachment is a striking instance of this. It will be remembered that in this action the well-timed initiative of seven riflemen won for the Japanese a battle in which no less than 9,000 troops were engaged.—(A. H. Trapmann.)

RECENT PUBLICATIONS

ORGANISATION

'A Territorial Army in Being.' By Lieut.-Colonel C. Delmé Radcliffe, C.M.G., M.V.O., Military Attaché at Rome and Berne, and Lieut. J. W. Lewis, West Kent (Q.O.) Yeomanry (late 19th Hussars), with preface by The Earl Roberts, V.C., K.G. Mr. John Murray, London. Price 2s. 6d.

One half of the book contains a most interesting account of the Swiss Military system, contributed by Colonel Delmé Radcliffe. Of the Swiss Cavalry he writes: 'It is imbued with a splendid and modern spirit. The men ride capitally, and with lots of dash. The use of the rifle is more fully indulged in than in any other Continental Cavalry. The scouting and individual work is as good as the training for shock tactics.' Later he adds: 'Families for many generations send their sons into the Cavalry, and it is considered a sad misfortune, almost a disgrace, if a young man is not accepted for the branch of the service in which the men of his family serve by tradition.' He gives some particulars of the system for the supply of horses which is adopted by the Swiss Government, and of which we hope to hear more in this JOURNAL.

Mr. Lewis is also to be congratulated very much on his extremely clear and interesting exposition of the Norwegian system, which he studied closely, with

the permission of the Norwegian Minister of War, during a considerable stay in Norway. Space forbids us to give many interesting quotations. The writer states that many of the horses are procured under what is known as the 'quarter system,' by which a farmer contracts to keep a horse for the use of the Army in return for an annual payment of about £5, and when the horse is called up 1s. per day in peace and 3d. a day in war. A Cavalry regiment, for example, has about 600 of these 'quarters' in its district.

The book shows how a system of national service works in a democratic country, and should certainly be read by any soldier or civilian who is interested in this most important subject.

TRAINING

'Staff Rides and Regimental Tours.' By Colonel R. C. B. Haking. Hugh Rees, Ltd., London. Price 8s. 6d.

This book is written both for those who direct and those who take part in staff rides. It contains much useful information on the preparation of schemes, as well as suggestions for criticising work and conducting conferences. Appreciations of situations are dealt with at some length. A chapter on tactical exercises for Cavalry, and examples of a 'one day' exercise are also added.

'Tactical Questions and Answers on Cavalry Training, 1907.' By Captain H. N. Gall, late 5th Fusiliers. Forster Groom & Co. Price 2s. 6d.

VETERINARY, ETC.

'Animal Management.' Issued by the General Staff, contains a vast amount of information about animals employed for Army purposes.

'The 20th Century Book on the Horse.' By Sidney Galvain. Bailliere-Tindall, & Cox, 2nd Edition, 21s.

The contents include the Galvain system of training of colts, conformation of the horse, breeding, diseases and ailments of the horse, and many other subjects. There is a useful chapter on bad habits and vices: their causes, prevention, and cure. The author contends that the chief cause of all of them is mismanagement, in some form or other, at some stage of the animal's career. There are 40 pages at the end of the book on polo. There are in all some 200 illustrations, and the book contains a great deal of useful information.

HISTORICAL

'The Wilderness, Spotsylvania and Cold Harbour.' Hugh Rees, Ltd. Price 7s. 6d.

These are extracts from 'Battles and Leaders of the Civil Wars' and published in this form with a view to the forthcoming examinations in Grant's 'Campaign in Virginia during May and June 1894.' The extracts are taken from the writings or reports of General Ulysses S. Grant, Major-Generals Martin T. McMahon, Alexander S. Webb, Theo. F. Rodenough, and others. A considerable number of maps are included.

'The Yeomanry of the County of Norfolk.' By Lieut.-Colonel J. R. Harvey. Jarrold & Sons, Ltd. Price £2 2s. or £1 1s.

The period covered by the book extends from 1782 to 1903. Different Yeomanry forces have been raised in the county during this period, and have done excellent service. At the time when an invasion by Napoleon was expected they were called out for permanent duty at Yarmouth, and at a later period had to take their full share in the suppression of the riots. At the time of the South African War the 43rd and 44th Squadrons of Imperial Yeomanry were raised in Norfolk, and acquitted themselves in accordance with the traditions of their county. A description is also given of the raising of the present Yeomanry regiment, which His Majesty has honoured by becoming their Hon. Colonel.

'The Story of The Guides.' By Colonel G. J. Younghusband, C.B.

This is a very interesting book, though, if one may say so, all too short. Colonel Younghusband has so much available material that we are sorry not to be able to read more than the 200 pages which it now contains. We learn that at one time the Cavalry only amounted to one troop, and that in 1848 seventy Cavalrymen attacked and defeated no less than 1,200 Sikh Cavalry, charging through them again and again !

'A Military History of Perthshire, 1660-1902.' Edited by the Marchioness of Tullibardine. Perth : R. & J. Hay ; London : Hugh Rees, Ltd. Price £1 11s. 6d.

This most exhaustive history, so handsomely illustrated, is divided into two volumes, the first of the two being perhaps the more interesting, for it deals with the military history of the county from the year 1660 up to modern times ; while the second volume is chiefly composed of the doings of the Black Watch and Scottish Horse in South Africa.

The first volume, which can be obtained separately at a cost of one guinea, will be found most interesting to all who have a taste for history, and it possesses the advantage of being so compiled that the reader is able to pick it up at his leisure and select a chapter from any part of the volume, according to the time at his disposal, without in any way interfering with the general sequence of the work. Not only does the book embrace most detailed accounts of all the Regular and Auxiliary Regiments raised in Perthshire, but it contains lengthy biographies of all the fighting men of eminence who belonged to the county.

The Editor has herself contributed many most interesting chapters, including accounts of the Battles of Killiecrankie and Sheriffmuir, and she is to be heartily congratulated on the most excellent work which she has produced. [B. E. S.]

'The Russo-Japanese War.' Reports from the British Officers, issued by the General Staff. Vol. I. and II. contain the reports of the officers who were attached to the Japanese Army ; Vol. III. of those attached to the Russian Army. There are in addition two cases of maps. We have only received these volumes as we go to press, but, apart from that, it would be quite impossible within the limits of a single critique to do justice to the enormous mass of information contained in these reports. We know enough of them, however, to say that it will well repay every Cavalry soldier to study not only those portions which relate to his own arm, but also those relating to other arms, since he will thereby obtain a grasp of the principles which actuated the leaders in that great

campaign which cannot fail to be of use to him when studying that most important question, co-operation in action between Cavalry and the other arms.

Among the articles dealing especially with Cavalry in the Service Magazines may be mentioned the following:—

'Journal of the R.U.S.I.'—*May*.—The text of Brigadier-General H. H. Wilson's instructive lecture on Staff Tours is given. 'Cavalry in Battle on 15th and 16th August, 1870,' translated from the French by Major E. Makins, D.S.O., gives much information as to the Cavalry work on those days, including the charge of the 3rd Lancers against the German Infantry, and the reasons for its failure. This article is continued in the June number, and includes a description of the charge of the Cuirassiers of the Guard, the charge of Redern's Brigade, and the demonstration of the 6th Cavalry Division—all interesting reading.

'The Journal of the R. A.'—*April*.—'From Southampton to South Africa with Horses.' By Captain C. D. Balfour, R.H.A. Experiences with 400 horses on the *Candor Castle*. Notes as to treatment of horses. *May*.—'The Tactical Employment of Horse Artillery with Cavalry.' By Colonel W. L. H. Paget, M.V.O., R.H.A. A short article on the statement in 'Cavalry Training' that 'the Artillery must not be glued to the Cavalry, but must be detached at the right moment, or *perhaps it is easier, as a rule, to detach the Cavalry.*' 'Seats and Hands.' By Major J. F. N. Birch, R.H.A., contains a short historical survey and hints. 3 plates. *June*.—'A Plea for a Horse Artillery Howitzer.' By Colonel W. L. H. Paget, M.V.O., R.H.A. A plea for a light howitzer to prevent the Cavalry Division being held up by a small force securely entrenched.

'The R.E. Journal.'—*May*.—'Dirigible Balloons.' By Brevet-Colonel J. E. Capper, C.B., R.E. A technical lecture containing much information.

'Journal of the United Service Institution of India.'—*April*.—An interesting account of Mischenko's raid on Yinkai by Captain A. W. F. Knox, 58th Vaughan's Rifles, is continued in this number. It is taken chiefly from an account by a colonel of a Cossack Regiment. He attributes the failure to: (1) Lack of concealment: the raid planned to take place in January was openly discussed in the previous November; (2) Want of rapidity in execution, due largely to the inordinate amount of transport—1,500 pack animals led by dismounted drivers. The total distance covered was 123 miles in 6 days, an average of $20\frac{1}{2}$ miles a day, carried out at an average rate of 2 miles an hour! Stuart's raid across the Potomac averaged 50 miles for 3 days, and Chernisheff's in 1812 46 miles for 5 days; (3) Wayside engagements effected nothing and delayed the force. They were brought about owing to the patrols being only half an hour in advance of the column. 'If the execution of Mischenko's raid was bad, it was no worse than its plan. His objective should have been the railway, the enemy's main line of communication.'

'The A.S.C. Quarterly.'—*April*.—An article, entitled 'A New Ride,' communicated by an ex-Austrian officer, is included in this number. The main principle of the ride is that of independent action. The riders instead of following one another in single file and at fixed distances, occupy the whole length of all four walls, and keep at such a distance apart that the ride is evenly distributed round the school. It is claimed that it has the following advantages: (1) It accustoms each horse to go independently; (2) it demands increased

attention on the part of the riders; (3) it gives the riders the chance to apply the aids at the proper time, and not necessarily at the last sound of the word of command; (4) as the instructor's attention is not taken up with the question of dressing and distance, he can devote more attention to seat, hands, and style.

Major W. H. Armstrong, A.S.C., discusses the horse supply at considerable length, and advocates, *inter alia*, the establishment of an experimental Government Stud Farm to see if we can breed to a 'type' which he urges should be a 'low, butty horse from 15 feet 1 inch to 15 feet 3 inches.' Two stallions to be kept at the farm, 100 mares to be lent to farmers, and the foals to be Government property.

July.—There is an interesting report on Ireland by Major Hazelton, A.S.C., principally from the point of view of transport and supply. The writer gives the number of horses of 2 years old and upwards in Ireland, including ponies, as 447,303. It is not stated, nor could it probably be estimated, except very approximately, what proportion of these are fit for any military service. We expect a very small proportion.

'United Service Magazine.'—*June.*—This number contains the prize essay, entitled 'Invasion Unopposed.' The writer calculates that a Power leaving a stated point in the North Sea could transport a large force across that sea in at most 25–38 hours, at a time when the Nore Division was cruising in the North Sea.

July.—Captain R. H. James examines the relative value of interior and exterior lines. In his deductions he states operations on exterior lines are morally more advantageous. Difficulties of supply may dictate the adoption of more than one line of advance. It is, however, when the tactical possibilities of so operating are considered that the advantages become so manifest; the inherent advantage of operating on exterior lines lies in the converging direction given to the masses, which can alone bring about great tactical results.

This magazine contains as usual many other interesting articles.

'The Haversack' (Abel Dykes Limited Auckland, N. Z.) 3d. We are very pleased to receive copies of this new paper, which we understand is the first purely military paper which has been started in New Zealand. The staff consists of the hon. business manager, Captain F. B. Knyvett, late 1st Queensland Contingent M.R., 5th Imperial Bushmen, 7th Australian Commonwealth Horse D.C.M., O.C., No. 1 Coy. Auckland Div. G. Art.; hon. editor, Captain C. E. Archibald (unattached), late O.C. Petone Naval Artillery, Wellington; hon. secretary, Captain P. H. Dowson, late Border Regiment O.C. College Rifles, Auckland. The numbers before us contain articles on the Campaign of Waterloo; the Revolution in Brazil 1893–4; a lecture on Courage; the organisation of the Military Forces of N.Z.; Artillery Manœuvres; Flies in relation to Sanitation of Camps, etc., etc. These numbers are excellent publications, and we wish the editorial staff every success.

NOTES ON SOME ARTICLES IN FOREIGN JOURNALS

United States

We greatly appreciate what our *confrères* the Editors of the Journal of the United States Cavalry Association have said with regard to this JOURNAL. It is

needless to tell them with what interest their excellent publication is read by many officers of the Cavalry arm in this country.

The Kavalleristische Monatshefte

Three numbers of the 'Austrian Cavalry Journal' are before us—those for March, April, and May. The March and April numbers contain three of the prize essays on 'The Employment of Cavalry Masses,' and perhaps those by Major von Ruffer and by Count Urangel most merit perusal. In the March number will be found two other papers of general interest, one on the employment of the Artillery attached to large Cavalry bodies, the other on the attack formation by Cavalry masses. A comparison of the training and use of the German and French Cavalry commences in this number and concludes in the following. The English 'Cavalry Training, 1907,' is briefly described in regard to its leading principles. The rest of the papers in this number have no very special interest for British readers. The Journal for April contains an important article on 'The Machine Gun in the Russo-Japanese War'; it is by Rittmeister Viktorin, who commands a Cavalry machine gun detachment, and who seems to have been at unusual pains to collect his facts and verify his statements. He discusses at considerable length and in much detail the rôle played by these guns during the war, the various methods of transport, and the ammunition expenditure and supply. In a paper on the horse-breeding establishments in Turkey, the writer speaks very highly of all that is being done to improve the horse supply for military purposes, as also of the mounting and manœuvring of certain of the Ottoman Cavalry regiments—opinions diametrically opposed to those of an officer who wrote on much the same subject in the issue of the same journal for October of last year. In the May number a Cavalry officer makes an appeal for a larger ammunition supply for the mounted man in the field. There is a long account of Mistschenko's raid on Inkai during the war in Manchuria; and there is a really enthusiastic paper on our 'Cavalry Training.' The management of the *Kavalleristische Monatshefte* have introduced with the last three numbers a series of tactical exercises for Cavalry officers, which seem worthy of attention.

France.

'Revue de Cavalerie.'—The opening paper in the May number—which is the last to reach us—is entitled *La Cavalerie dans la Découverte*, and appears to be something in the nature of a protest against a tendency—which is apparent among other military nations—slavishly to imitate all things German. The writer points out that at the moment of the commencement of a war between France and Germany, the latter would endeavour to flood the French border with masses of Cavalry, and that for the French to attempt to meet this force with their numerically weaker Cavalry would be merely to play the German game. The French tactics should, he declares, be to delay the enemy until the army in rear has had full time for mobilisation, to harass the German advanced troops, to hold defiles and bridges, and draw the hostile columns on to run their heads against the stronger well-posted troops who would have had time to prepare for their reception. *Before* the general engagement the weapons of the numerically weaker Cavalry are mobility, ground, the rifle and at times the sword, while the

sword and lance are the *armes d'une cavalerie victorieuse*. The manner in which the writer works out his ideas on the subject of *la découverte*, based on what he considers the limitations of a numerically weak Cavalry, are interesting and will repay perusal, even if the reader disagrees, as many no doubt will, with the contentions of the author. Henry Choppin continues his *Souvenirs d'un Capitaine de Cavalerie*, and tells us something of the brilliant leader Count Charles Pajol, eldest son of General Pajol, the victor of Montereau. None the less valuable because brief are the *Exercices pratiques de cadres* now running through the numbers of the *Revue*—very clear and illustrated with maps. In the continuation of the paper on the remounts of the French Army during the revolution and empire, we have a most illuminating record of the steps taken for the mounting of the army for the Russian campaign, which shows the extraordinary way in which the whole measure was supervised by Napoleon himself, the difficulties he experienced, and his wonderful grasp of detail. The unprecedented waste of horse-flesh can be appreciated when we read that in January 1813 there were only 3,000 remounts in the dépôts, and that only 1,500 horses could be counted upon as returning from Russia.

Chili.

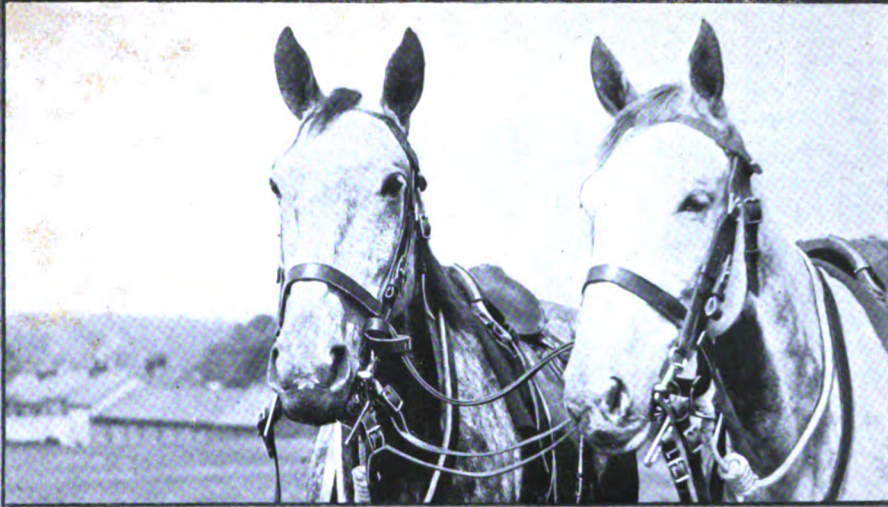
We are indebted to the Ministry of War for sending us several long and very interesting numbers of the *Boletín del Ministerio de Guerra and Marina*, which include many papers dealing with subjects of interest. We hope to deal with them further in a later number.

MISCELLANEOUS

Methods of linking horses.—Major the Hon. R. H. Lindsay, Royal Scots Greys, has sent us some photographs of horses in his squadron, which are linked in what he claims to be a novel and original manner. The bridoon reins being laid flat against each other, should be passed up through the 'D' on the off side of the head collar of the horse on the left and down through the 'D' on the near side of the man's own horse; the reins thus form a complete circle between the horses coupled. The system is very quick, very simple, and very exact, each horse being practically equi-distant from another; neither do they pull or bore on each other, as they are all held on the bridoon. It is not intended for long continued periods of time, when the neck rope would be preferable, as laid down in the Drill Book; but it is claimed that for dismounted work when in close order it is quite as quick a method of coupling horses as is shown on page 96, Section 80, and page 131, Section 106, of the Drill Book, but of course it is not applicable to extended work.

The Balaclava Field-trumpet.—It is satisfactory to learn that the Balaclava Field-trumpet, which was sold by auction not very long ago, has been presented to the Royal United Service Museum by Mr. W. W. Astor, and all Cavalry soldiers will honour this liberal act on the part of Mr. Astor.

The trumpet belonged to Trumpet-Major H. Joy, 17th Lancers, who was orderly trumpeter to Major-General the Earl of Lucan at Balaclava on October 25, 1854. It was presented to Joy by the Colonel and Officers of his regiment, and is en-



graved 'Presented by the Colonel of the 17th Lancers to Trumpet-Major H. Joy, on which the Balaclava charge was sounded on October 25, 1854.'

Amongst certificates of authentication of the Bugle are those of Lord Lucan, Lieut.-General Sir D. C. Drury-Lowe, and Sir George Wombwell.

OBITUARY

Lieut.-General Sir J. R. S. Sayer died recently at the age of eighty-two. He entered the 1st Dragoon Guards in 1845. He served with his regiment in the Crimean Campaign, taking part in the siege and fall of Sebastopol. He reached the rank of lieutenant-colonel in October 1859, and commanded his regiment in China throughout the campaign of 1860, being mentioned in despatches and receiving for his service the medal with two clasps and the Companionship of the Bath. From March 1868 till June 1870 he was assistant commandant of the Cavalry Depôt, Canterbury, reaching the rank of major-general in February 1870; from April 1873 till July 1874 he was in command of the Brigade Depôt at Derby, and from the latter date till the close of May 1876 of the 3rd Dragoon Guards. He was general officer commanding the Belfast District from March 1882 till March 1883, and of the Western District from April 1, 1883, till March 31, 1885, having been promoted to be lieutenant-general from March 13, 1885. He retired in April 1890, and was created a K.C.B. in June 1906. Sir James Sayer was colonel of the 8th Hussars from February 1 till June 25, 1886, since when he had been colonel of the 1st Dragoon Guards. He had the Grand Cross of the Franz Josef Order of Austria, the Emperor of Austria being Colonel-in-Chief of the 1st Dragoon Guards.

Major Cope-Smith, 17th Lancers, killed in action near Ali Musjed, aged thirty-nine. He joined the Royal Inniskilling Fusiliers in February 1887, being promoted lieutenant in November 1888. Transferring into the Indian Staff Corps in October 1890 he became captain and brevet major in February 1898, and substantive major in February 1905. He served with the Hazara Expedition of 1891, receiving the medal with clasp. In 1892 he took part in the Isazai Expedition. He served in British Central Africa in 1895 with the expeditions against Matipwiri, Larifi, Mponda, Makanjiri, and Mlozi, being mentioned in despatches, receiving the medal with clasp and the brevet of major.

We regret also to record the death of Colonel Sir Alfred Egerton, K.C.V.O., C.B., late Royal Horse Guards, who died on May 26.

Colonel the Hon. Walter J. Stewart, late 12th Lancers, who died on June 16.

Lieut.-Colonel W. H. Hippiisley, late Royal Scots Greys, who died on June 28.

Lieut.-Colonel W. G. Renton, Northamptonshire Yeomanry, and late 17th Lancers, who died on April 28.

Major B. H. Gunston, late 5th Dragoon Guards, who died on June 2.

Captain N. J. Chichester, late 7th Dragoon Guards, who died on April 21.

To the Editor of the CAVALRY JOURNAL

SIR,—Can you, or any of your readers, throw any light upon the history or the makers of the swords described below, which are the property of Colonel Obedullah Khan, A.D.C., the commander of the forces of Bhopal State, Central India?

No. 1. Total length four feet three inches, blade three feet seven inches.



* * * H S * * * H S * * * H S * *

The above inscription lies on each side of the fort of the blade, which has inscribed on its back near the hilt in Arabic letters 1840 (inlaid in gold), then the name of the owner, Rukn ed Dowla Itiqat Khan Bahadue Farug Shahi, then Ismuhu (that is this sword's name) Nehal i Murad ('Tree of Desire').

No. 2. Inscription in the two grooves of the blade both sides :



Handle inlaid and encrusted with gold.

A tulwar which has been for three generations in the Bhopal family, and was used by these Pathans in Indian wars in the early nineteenth century.

Both these swords are of exceptionally fine steel, and it appears possible that they were made under European direction for or by Indians.

Yours, &c.

EXCALIBUR.

To the Editor of the CAVALRY JOURNAL.

DEAR SIR,—These signatures are most interesting. I am inclined to think the straight sword should be attributed to an armourer of Solingen, but I have never seen the signature before. This type of sword, like the 'Firangi,' is often found possessing blades made in Spain, Italy, and Germany.

The tulwar appears to possess the signature of an English maker, 'Newton,' spelled on the blade 'Nuton,' but I am unable to say when he worked. There was an armourer 'C. Nuterisch,' who lived in the second half of the eighteenth century and worked at Vienna. His signature is on a carbine in the Tower of London, but this sword cannot, of course, be attributed to him.

Yours truly,

B. E. SARGEANT.

*SPORTING NOTES*By LIEUT.-COLONEL J. W. YARDLEY (*Sporting Editor*)

THE PROTECTION OF BIG GAME

HUNTING big game affords a sport that is especially useful for the training of a soldier. The ability of fitting out an expedition into wild uninhabited countries with all the transport, camping, and marching arrangements, the power of enduring hardships, the resource and patience in tracking animals, coolness, nerve, quickness, and accuracy in shooting are some of the qualities that it engenders.

It is, however, a sport that is more abused than any other, and on the laws of which much ignorance exists. Hitherto it has been the greatest boon to soldiers abroad, but it is incumbent on them now to look to it, or in a very short time the sport will cease to exist.

The regardlessness of regulations that prevail amongst the majority of those who go big game shooting is appalling; the result is that despite the attempts of a few, and the laws made in most countries, the game is fast disappearing all over the world.

Some men who are generally acknowledged good sportsmen are often the worst offenders. The shooting of a single good head of a specimen is all that should be aimed at, but to effect this purpose a vast quantity of game is generally unnecessarily destroyed. The reckless use of small bore magazine rifles, shooting at long ranges, and bad shooting do incalculable harm; the shooting of game for camp followers (which should never be done except in dire extremities for food), also the wanton shooting of animals, especially females, as bait for lions and smaller carnivora are other evils. The destruction of females is perhaps the greatest. Writing on this subject Major Stevenson Hamilton, late Inniskilling Dragoons (who as Game Commissioner for the Transvaal is doing so much for the restoration of big game in that country), says:—

‘The royal road to the preservation of game is of course the sparing of the females. In order to demonstrate the immense practical importance which this would have upon the increase of game the following table has been drawn out, representing the natural increase from one impala ewe during a period of six years. The ratio of females born over males has been set at a venture at seven to four. It will be seen, therefore, that at the end of 1907, providing that the first two lambs born were females, and that no untoward accidents occurred, the progeny would amount to eleven, impala ewes breeding every year, and the females producing offspring in their second year.

1907	F		F		M		M
1906		M		F			F
1905	F					M	
1904					F		
1903			F				
1902							
1901			F				

'Now let us suppose, for the sake of argument, that the original mother of the family is killed during the shooting season of 1904, that is to say after she has reared her first lamb, a female as it happens. It is obvious that the whole of the right hand portion of the above table becomes thereby swept away, so that at the end of 1907 we have remaining only the lamb of 1903 plus her progeny, that is to say a total of five animals instead of twelve! Still more startling is the result had the lamb of 1903 happened to be a ram instead of a ewe, for in that case, supposing the mother to be shot soon after rearing it and before producing another lamb, we should have at the end of 1907 only this ram to show as our total instead of eight ewes and four rams! And all this, note well, is the result of the killing of *one single female*. I have taken impala as an example, but the above would equally well apply to almost any other species of antelope. Of course where the preponderance of females over males is less than obtains amongst the impala, the killing of one of the former has a still greater relative effect on the future of the species.'

Of course, in many species of game both the male and female carry horns, and there is the difficulty of distinguishing the one from the other, but by stalking to close range before firing, or with good use of a spy-glass and previous study of the animals this difficulty is soon overcome. Many men take out a licence to shoot in a country, and then shoot wildly on the plea that time is limited, they have paid and must get their money's worth; many comply with the letter only and not the spirit of the regulations, and others when they get away into the wilds utterly disregard them. The writer has the last few years done a good deal of big game hunting in various countries, and nothing has struck him more than the ignorance and abuse of the game regulations by inhabitants and visitors alike. Many set out without even knowing what the animals they are going to shoot look like, are themselves quite unfit, the vilest shots, and ignorant of their rifles; often they commence testing their rifles on the game itself! Would such men have the face to exhibit themselves in any other sport without previous knowledge or training? As instances of abuses:—In one country this year a titled Englishman related with pride how he had successfully arranged a Zebra drive for his party, so that the wretched animals passed all the guns, with the result that apart from those wounded fifteen were left dead on the veldt. Another sportsman with licence to shoot one giraffe plastered three on different occasions with

long range magazine fire, regardless of sex, and never got one; with careful stalking and close range shooting he could easily have secured one good male specimen without wounding any. A quite common occurrence is to shoot more than the number of a certain species allowed, in order to obtain a better head; having shot at random the limited number a better specimen is seen and shot, one of the previous heads being surreptitiously thrown away, the sportsman (?) knowing that without evidence he cannot be fined. A quantity of immature and worthless specimens are also brought back by many shooting parties. Added to all this the occasional ravages of rinderpest, and the depredations owing to natives acquiring firearms, reduce the big game at an alarming rate.

In many countries where the best sport is to be had the British officer is the man of all others who is most competent to uphold the regulations, but he is too often lethargic and an offender himself.

When strict preservation is disregarded it is extraordinary in what a short time the game disappears. America is a good example of this; now the Government there spends large sums in preserving the little left; Cavalry are employed in Yellowstone Park for this purpose, and anyone caught breaking the regulations would have his rifles, tent, and equipment destroyed or confiscated. Laws made and enforced a few years ago would have ensured good sport being now enjoyed there and prevented the big cost to the Government to preserve even specimens of the fauna of the country.

There is still magnificent sport to be had in many of our Colonies. Major Wilberforce of the Bays has recently enjoyed fine sport in Barotseland, and Captain Home, 5th Dragoon Guards, in British East Africa, where he secured no less than twenty-eight different specimens of big game.

Thanks to the perfection of photography a high class and exciting sport is now to be enjoyed by stalking with the camera. The admirable results that can be obtained are well illustrated in Herr Schilling's recent books, and it is still open to an Englishman to produce better.

Luckily, we have in many of our Colonies such well known big game authorities as Sir Alfred Sharpe, K.C.M.G., and Mr. F. J. Jackson, C.B., C.M.G., at the head of affairs. In such Colonies reserves have been established and regulations laid down, but until the latter are strictly enforced the game will decrease. To effect this the code of honour amongst those who shoot must be greater, they must play the game themselves and insist on others doing the same.

Further, more money must be spent by Governments on seeing their regulations kept. At present licences of £40 to £50 are requisite in most countries, which afford a good income, but of this sufficient is not spent on the protection of the game.

It is not generally known that there is a 'Society for the Preservation of the Wild Fauna of the Empire,' of which Mr. Rhys Williams, 2 Temple Gardens, London, E.C., is the Hon. Secretary.

It is the duty of everyone who loves his country, and especially of soldiers, to help in this cause, otherwise a future generation will have to mourn the extinction of all these lovely wild animals, and the loss of the grand sport, training, and pleasure afforded in finding and seeing them.

RACING

THE Kildare and National Hunt Meeting at Punchestown this year was, as usual, a most sporting gathering. The Irish Military Hunters' Race on the first day, and the Irish Grand Military Cup on the second day, resulted as follows:—

Irish Military Hunters' Race of 150 sovs.; about three miles and a half. Major Peele's (R.F.A.) ch.m. Merry Song, by Fortunio—Merry Maiden, aged, 12 st. 7 lb. (Mr. Lawson), 1; Mr. Preston, jun.'s (R.F.A.) Yorkshire Relish, aged, 12 st. 7 lb. (Captain Lloyd), 2; Mr. F. de Tuyll's (18th Hussars) Fair Nell, aged, 12 st. 7 lb. (Owner), 3; Major C. Dalton's (R.A.M.C.) The Skipper, 6 yrs., 13 st. 7 lb. (Mr. P. O'B. Butler), 0; Mr. F. de Tuyll's (18th Hussars) Blucher, aged, 12 st. 7 lb. (Mr. Gore Langton), 0; Mr. G. T. Cliff's (3rd D.G.) Lively Boy, 6 yrs., 12 st. 7 lb. (Captain Weir), 0; Captain O'Hara's (A.S.C.) Second Thought, aged, 12 st. 7 lb. (Owner), 0; Mr. V. C. Alcock's (18th Hussars) Bergo, aged, 12 st. (Owner), 0; Mr. R. Baggally's (11th Hussars) Aubawn, 6 yrs., 12 st. (Owner), 0; Mr. J. B. George's (R.I.R.) Bective, aged, 12 st. (Owner), 0; Captain Moran's (D.L.I.) Take Cahir, 6 yrs., 12 st. (Owner), 0; Captain Pallin's (A.V.C.) Haynestown Lad II., 5 yrs., 12 st. (Owner), 0; Mr. A. H. Watt's (3rd D.G.) Clonmoney Lass, 6 yrs., 12 st. (Captain Hayes), 0; Mr. F. G. Chalmers's (R.H.) Johanna, 5 yrs., 12 st. (Mr. Kedie), 0.

Betting: 2 to 1 agst The Skipper, 7 to 2 agst Merry Song, 7 to 1 agst Second Thought, 8 to 1 each agst Johanna and Fair Nell, and 10 to 1 agst Yorkshire Relish. At the wall Bergo came to grief, whilst further on Haynestown Lad II. took up the running, The Skipper and Take Cahir in the rear. The Skipper fell at the bank past the stand, whereupon Clonmoney Lass was sent to the front, attended by Merry Song and Fair Nell. Six furlongs from home Merry Song took command, and won in a canter; a short head divided second and third; Second Thought was fourth, and Johanna next.

Irish Grand Military Cup of 200 sovs.; about three miles. Captain W. A. Pallin's (A.V.C.) b.m. Riversaint, by Riverstown, dam by St. Michael, aged, 12 st. 12 lb. (Owner), 1; Hon. R. Bruce's (11th Hussars) Mon Prince, aged, 13 st. 7 lb. (Mr. A. B. Lawson), 2; Captain W. A. Pallin's (A.V.C.) Athboy, aged, 11 st. 11 lb. (Mr. K. M. Potter), 3; Mr. R. Smyly's (1st L.N.L.) Garryconnell, aged, 13 st. 1 lb. (Owner), 0; Colonel Grenfell's (3rd D.G.) Laurium II., aged, 11 st. 11 lb. (Mr. Sutton), 0; Captain E. B. O'Hara's (A.S.C.) Second Thought, aged, 11 st. 11 lb. (Owner), 0; Mr. F. de Tuyll's (18th Hussars) Beelzebub, 5 yrs., 11 st. 7 lb. (Owner), 0.

Betting: 7 to 4 agst Riversaint, 2 to 1 agst Mon Prince, 7 to 1 agst Laurium II., and 10 to 1 agst Athboy. Athboy cut out the work for a mile, soon after which he went wide, and Second Thought fell. At the herd's garden Riversaint took the lead, and making the remainder of the running, won by thirty lengths; twenty lengths separated second and third.

Despite the bad weather, a big attendance, large fields, and good racing insured a great success for the Aldershot Spring Meeting.

On the opening day the Farnborough Steeplechase was won by Mr. J. U. Gaskell's Bradshaw (owner riding); the Past and Present Military Handicap

Steeplechase by Mr. E. Christie-Miller's Delgany (Mr. Gaskell again riding); the Fleet Selling Steeplechase by Captain L. S. Denny's Pat McCann; the Aldershot Command Light Weight Hunters' Steeplechase by Mr. D. J. Greenshield's Cottagefield (with Mr. T. F. Sandeman up).

On the concluding day Mr. D. J. Greenshield again won the Aldershot Command Steeplechase with Cottagefield (riding himself); Mr. Ross McGillicuddy took the Aldershot Cup with Foolhardy (Mr. Walwyn up); the Spring Handicap Steeplechase went to Mr. E. Christie-Miller's Sprinkle Me; and the Aldershot Command Welter Hunters' Steeplechase was won by Colonel G. L. Holdsworth's Hopper (on which Mr. T. A. Thornton rode a capital race). It was altogether a most sporting meeting, and the riding of the large number of soldiers was distinctly good.

The Royal Gloucestershire Hussars Yeomanry Steeplechase took place at the Cheltenham Spring Meeting. The race was two miles over the steeplechase course; there were seven runners, and a capital race resulted in the clever victory of Corporal J. Burrough's Rosethorpe (owner up). It was a fitting conclusion to the Yeomanry training, at which there were a splendid looking lot of horses out this year.

The Household Brigade Races were held as usual at Hawthorn Hill, and were honoured by the presence of the Prince and Princess of Wales, Prince Christian, and Prince and Princess Alexander of Teck. The following are some of the results:

1st Life Guards' Challenge Cup.—2nd Lieut. Astor's Coptic (Owner). Seven ran.

Royal Horse Guards' Regimental Race.—Lieut. Lord Gerard's Silent II. Seven ran.

2nd Life Guards' Regimental Challenge Cup.—Lieut. Newton's Lady Nicotine. Seven ran.

Household Brigade Selling Hurdle Race.—Lieut. Lord H. Grosvenor's (1st L.G.) Brankelow.

Open Military Selling Steeplechase.—Lieut. Newton's (2nd L.G.) Irish Poplin.

Household Brigade Hunters' Challenge Cup.—Captain Brassey's (R.H.G.) Delight. Twenty ran. This is always a popular race, the result on points being a win for the 1st Life Guards, with the Royal Horse Guards second, 1st Coldstream Guards third, 3rd Grenadier Guards fourth, 2nd Grenadier Guards fifth, and 2nd Life Guards sixth.

The Transvaal Handicap of 300 sovs. (two miles) was run for at the Johannesburg Turf Club's Autumn Meeting, and was won by Lieut.-Colonel R. Hoare's (4th Hussars) ch.g. Battle Cry, by Count Schomberg.

The Yeoville Welter Handicap of 300 sovs. (one mile and a half) was won by Lieut.-Colonel Lord D. Compton's b.m. Floridity, by Marcion.

POLO

At a meeting of the Hurlingham Club Polo Committee Major Kenneth MacLaren, D.S.O., who has been the official umpire since 1906, was appointed

assistant manager for polo, in the place of Mr. G. St. Quintin, whose death we regret to record. Major MacLaren is well known in the polo world as the famous captain of the 13th Hussars' team when they won the Inter-Regimental Tournaments in 1892, 1894, and 1895. Captain E. A. Fagan, the back of the 36th Jacob's Horse team, was also appointed assistant official umpire, in place of Major R. E. Chaplin, who has returned to India.

With reference to the deputation formed by the County Polo Association to the general managers of the railway companies, Colonel Kenna strongly represented the views of Army players; but the companies regretted that they could not see their way to allow reduced rates for polo ponies travelling to and from matches, and grooms to travel free of charge.

The companies agreed to amplify the present regulation as to period of availability for return journey to the following extent: 'Provided there be a series of matches, the polo ponies must be returned to the original sending station not later than the day following the last match, but not exceeding one month from the date of the journey from the original sending station.'

It is unfortunate that the companies would not make further concessions, and polo players should not let the matter drop.

The present enormous expense of travelling ponies to play matches is a deterrent to all out matches and tournaments, but if this could be reduced the game would benefit and there would be a greatly increased traffic of ponies and passengers, to the benefit of both parties and the general public.

There was a poor entry this year for the Army Cup. The final took place at Ranelagh between the Greenjackets and the Hussars, the former winning by 8 goals to 1.

A grand game resulted in the final for the Champion Cup at Hurlingham between the Old Cantabs and Rugby.—Old Cantabs: Captain George Belville, Mr. F. M. Freabe, Mr. W. S. Buckmaster, and Lord Woodhouse, M.P. (back). Rugby: Mr. W. J. Jones, Mr. George Miller, Captain E. D. Miller, and Mr. Charles Miller (back). It was fine polo throughout the match, and victory fell to the younger team of Cantabs by 6 goals to 4.

Only three teams competed for the Olympic Cup—viz., Roehampton, Hurlingham, and Ireland. Roehampton, having defeated Hurlingham, played the final with Ireland, whom they easily beat by 8 goals to 1, and thus won the first tournament in the history of the Olympic games.

The result of the International Polo match between England and Ireland, played at Hurlingham, was a win for England by the narrow margin of 5 goals to 4, after a splendidly contested game.

INTER-REGIMENTAL TOURNAMENT

The popularity of this Tournament is evinced by the following entries, viz.:—Royal Horse Guards, 1st Life Guards, 2nd Life Guards, Queen's Bays, Coldstream Guards, 7th Hussars, 21st Lancers, 16th Lancers, 2nd West Yorkshire Regiment, The Buffs, Scots Greys, 11th Hussars, 5th Lancers, 8th Hussars, and 20th Hussars.

Results

The Royal Horse Guards beat the 2nd Life Guards at Datchet by 4 goals to 1.

The 1st Life Guards beat the Coldstream Guards at Hurlingham by 13 to *nil*.

The 7th Hussars beat the Buffs at Aldershot by 15 to 2.

The 20th Hussars beat the 8th Hussars at Ranelagh by 7 to 3. A remarkable incident happened during this game. As is well-known the sides change ends after each goal, but this they omitted to do after a goal had been obtained, and lined up at the centre not facing their proper ends. The umpire restarted play without noticing the mistake. In the course of a few seconds the 20th Hussars obtained possession and shot the ball through what was really their own goal; then everyone noticed the irregularity, and after a conference the umpires decided that the goal counted in favour of the 8th Hussars.

The Royal Scots Greys beat the 16th Lancers at Wellington by 8 to 5.

The 5th Lancers beat the Royal Horse Guards at Hurlingham by 6 to 5 after a close, exciting game.

The 20th Hussars beat the 21st Lancers at Wellington by 13 to 1.

The 21st Lancers beat the 2nd West Yorkshire Regiment at Aldershot by 10 to 1.

The 11th Hussars beat the 1st Life Guards at Hurlingham by 9 to 3.

In the semi-finals at Hurlingham the Scots Greys easily defeated the 5th Lancers by 10 goals to 3, and the 11th Hussars beat the 20th Hussars by 7 goals to 2. It will be remembered that the 11th Hussars and 20th Hussars fought out the finals of 1906 and 1907, with the result that the latter won on each occasion. In this match the 11th Hussars turned the tables on their opponents most decisively, being not only better mounted but playing a better game.

The final between the 11th Hussars and Royal Scots Greys took place before a large gathering, which included the Crown Princess of Sweden, the Duke and Duchess of Connaught, Lord Roberts, &c.

The 11th Hussars at once asserted their superiority, and after a very one-sided game won by the big score of 13 goals to 1. The Duchess of Connaught presented the Cup to the winners.

The victory of the 11th Hussars was most popular, as for the last two years they have been the runners-up, but have undauntedly and with determination worked hard to secure this coveted trophy.

The players were—Royal Scots Greys: Mr. W. McCombie, Captain W. Long, D.S.O., Mr. M. Borwick, and Major C. B. Bulkeley-Johnson (back).

11th Hussars: Mr. F. H. Sutton, Captain P. D. Fitzgerald, D.S.O., Mr. M. L. Lakin, Captain C. L. Rome.

Umpires: Major Kenneth MacLaren and Captain A. G. Fagan.

Aldershot day at Ranelagh this year was a brilliant success. Her Majesty the Queen and Princess Victoria honoured the Club with their presence, and Her Majesty graciously presented the Cups to the winning teams.

The Aldershot Challenge Cup for the Cavalry secured an entry of eight teams,

the final being between the 16th Lancers and Staff College. The former, last year's winners, won by 3 goals to 1.

The Aldershot Infantry Cup also secured an entry of eight teams, the final resting between the Irish Guards and Coldstreams' B team. This resulted in an exciting match, which proved a tie of 2 goals each. On extra time being played the Irish Guards, the holders, secured the winning goal.

As heretofore, the whole Tournament was got through in the day by playing four chukkers of eight minutes' duration, and the Regimental massed bands gave a fine selection of music.

POLO ABROAD

At the annual meeting of the Indian Polo Association Major-General M. F. Rimington, C.B., was unanimously elected President.

Major Lecky was elected Hon. Secretary, and on his promotion Major Chaplin, 8th Cavalry, will resume the duties.

Votes of thanks were passed to Major-General Clements, C.B., D.S.O., on his resigning the presidency, thanking him for the great support he had always given to polo, and to Major Lecky for his good work as secretary during the last seven years.

It was decided that Rule 10 be reconstructed as follows: 'There shall be an annual meeting of members of the I.P.A., which shall be held during the Inter-Regimental, the Indian Cavalry, and the Infantry Tournaments in annual successions.'

Amongst other Rules passed it was decided the maximum height of polo ponies shall be 14.1, to take effect from April 1, 1908.

Polo Tournaments are to be held at Toronto, Montreal, and Winnipeg this season. The Military teams will all be exceptionally strong this year, and a good result is expected.

FOOTBALL

At the annual meeting of the Army Association it was decided by a large majority to remain affiliated to the Football Association. At a poll 156 clubs voted for staying with the Football Association, only 22 voting for joining the Amateur Association.

The final tie for the Army Cup (Association Rules) between the 4th Battalion King's Royal Rifles and 2nd Battalion Lancashire Fusiliers took place at Aldershot. There were about 10,000 people present, which included the Prince and Princess of Wales. The King's Royal Rifles were the faster team, and won a splendidly contested match by 1 goal to 0. At the conclusion the Princess of Wales graciously presented the Cup and medals to both teams.

The final for the Army Rugby Union Cup took place at Aldershot between the 1st Battalion Leicestershire Regiment and 1st Battalion Welsh Regiment. A very hard sporting match resulted in a win for the Leicestershires by a goal from a try to a dropped goal. In presenting the Cup and medals, General Colin Mackenzie congratulated the players on their good sportsmanship.

The final for the Irish Army Cup was played at Dublin between the Rifle Brigade and the Leicestershire Fusiliers (the holders). The former won by 3 goals to love.

Captain J. R. Hannay, Queen's Regiment, has succeeded Lieut. G. H. Birkett as Hon. Secretary of the Army Rugby Union.

CRICKET

The match between the Navy and Army was played at Lords this year, three days being allotted for the game. Some first-class cricket was seen, and it was most unfortunate that rain on the third day necessitated a draw. Undoubtedly the Army possessed the stronger eleven, nearly all their players having figured in their county matches. For the Army Major Turner played a fine innings of 128, and Major Poore hit up 62 in less than seventy minutes. For the Navy, Commander Evans played a good innings of 63. Full scores :

ARMY			
1st innings		2nd innings	
P. G. Robinson, b Wilson	23		
F. R. R. Brooke, c Watson, b Mornement	53	c Syfret, b Montgomery	41
Major A. J. Turner, b Mornement	128		
A. H. Du Boulay, c Montgomery, b Wilson	18		
Captain W. N. White, b Sinclair	31		
Major R. M. Poore, b Sparkes	62		
H. S. Kaye, b Mornement	6		
G. J. Edwards, c and b Sinclair	14	c Mornement, b Wilson	1
Captain T. W. Sheppard, b Sparkes	0		
O. C. Mordaunt, not out	26	c Syfret, b Montgomery	8
A. W. Lupton, b Sinclair	0	not out	0
Byes 13, 1-b 5, n-b 4	22	Byes 1, 1-b 2, n-b 2	5
Total	383	Total (3 wks.)	55

NAVY	
Lieut. G. C. Harrison, c Turner, b Du Boulay	11
Surgeon E. Causton, c Brooke, b Lupton	4
Commander B. S. Evans, c Lupton, b Robinson	63
Captain H. F. Montgomery, b Du Boulay	16
Lieut. F. O. B. Wilson, c Brooke, b Mordaunt	79
Staff-Surgeon R. H. Mornement, c Mordaunt, b Robinson	1
Commander H. D. R. Watson, c Brooke, b Robinson	0
Captain W. W. Godfrey, b Lupton	10
Commander J. B. Sparkes, c Edwards, b Lupton	39
Midshipman E. Syfret, b Lupton	4
Sub-Lieut. E. W. Sinclair, not out	1
Byes 12, 1-b 3, w 1, n-b 5	21
Total	249

A benefit is being promoted on behalf of the veteran groundsman of the Garrison Club, Shorncliffe Camp, G. C. Wingham, now in his thirty-first year of continuous service on the ground. He entered the Army in 1863, and has been playing in Army Cricket ever since. Seventy years of age, he is probably the oldest cricketer in the world playing the game regularly. In 1906 he took 266 wickets, which he repeated last year, and this season hopes to take 267. Subscriptions may be sent to Captain Budge, Hon. Sec., Shorncliffe Garrison C.C., Shorncliffe Camp, Kent.

GOLF

It is proposed to hold a competition, open to all officers of the Regular and Territorial Army belonging to the Northern Command, on the York Golf Club course at Strensall. Lieut.-General Sir L. Oliphant has kindly presented the Cup, to be played for annually.

An Army Golf Championship for South Africa has been arranged to take place at Potchefstroom, where there is a good turf course of eighteen holes. Lieut. Neilson, 4th Hussars, is Hon. Secretary.

BOXING

The 7th Hussars Boxing Club gave a dual nights' entertainment at Aldershot, which was extremely popular and well patronised. The chief event was the meeting of Curley Watson, 10st. 8lb. champion of England, and Private Warner, 3rd Dragoon Guards, Army and Navy middle-weight champion. After a ten-round contest, Watson was pronounced the winner by a tiny margin of points. It was, however, a near thing, and another round or two would probably have seen Warner victorious.

The 3rd Dragoon Guards had a successful tournament at the Curragh, at which there were some excellent contests, the best being between Dan Kelly of Wexford, and Private Warner, the Irish Army champion. This contest resulted in a win for Dan Kelly, who received a great ovation from the soldiers.

ROYAL NAVAL AND MILITARY TOURNAMENT

This tournament, for which the performers had previously qualified in their respective district tournaments, took place at Olympia, and has again been one of the most popular events of the season. One of the features of the entertainment was the good show of bush fighting given by the soldiers of the West African Regiment. The following are some of the results :—

Officers

Sword v. Sword.—Lieut. H. A. Shrubb, 7th Dragoon Guards.

Sabre v. Sabre.—Captain R. M. Willoughby, 9th County of London Regiment.

Riding and Jumping.—Lieut. M. Graham, 16th Lancers.

Heads and Posts.—Major W. A. Tilney, 17th Lancers.

Lemon Cutting.—Major and Riding Master W. H. King, R.H.G.

Tent Pegging.—Major H. A. Lemprière, 7th Dragoon Guards

Sword v. Lance.—Lieut. and Riding Master A. E. V. Huxtable, 7th Dragoon Guards.

Foils.—Captain C. Van der Byl, 16th Lancers.

Epée.—Lieut. Betts, Army Gymnastic Staff.

N.C.O.s and Men

Tent Pegging.—Sergeant Nice, 7th Dragoon Guards.

Lemon Cutting.—Sergeant-Major Mordaunt, 18th Hussars.

Navy and Army Championships

Tent Pegging.—Sergeant C. Vesey, 18th Hussars.

Lemon Cutting.—Sq. Sergeant-Major E. Broadley, Norfolk Yeomanry.

Sword v. Lance.—Sq. Sergeant-Major A. Cooper, 11th Hussars.

Sabre v. Sabre.—Lieut. J. Betts, Army Gymnastic Staff.

Bayonet v. Bayonet.—Sq. Corporal-Major W. Elliott, 2nd Life Guards.

Heads and Posts.—Sq. Sergeant-Major E. Broadley, Norfolk Yeomanry.

Foil v. Foil.—Lieut. J. Betts, Army Gymnastic Staff.

Sword v. Sword (mounted).—Major R. M. Poore, D.S.O., 7th Hussars.

Riding and Jumping.—21st Lancers.

Royal Horse Artillery Galloping.—Z Battery, R.H.A.

The Sixth Military Tournament was held by the Toronto Garrison on May 13 to 16, and produced some excellent results.

INTERNATIONAL HORSE SHOW

The great International Horse Show at Olympia attracted hundreds of thousands of spectators. There were about 30,000 present on the occasion of the visit of their Majesties the King and Queen. On this afternoon there was a march past of French, German, Belgian, Dutch, Italian, Spanish, and British officers to the number of fifty, of whom the following gave a jumping exhibition: Lieut. de Blommaert (1st Guides), Sous-Lieut. Daufresne de la Chevalerie (3rd Lancers), and Sous-Lieut. Picard (2nd Lancers), representing Belgium; Lieut. M. Graham (16th Lancers), Lieut. R. B. Oldrey (4th Dragoon Guards), and Lieut. N. Reynolds (21st Lancers), England; Lieut. Broudehous (5th Dragoons), France; his Serene Highness Prince Herman de Saxe-Weimar, Duke of Saxony, Germany; Lieut. Baron van Welderen Rengers (4th Hussars), Lieut. C. H. Labouchere (Hussars), and Lieut. H. Mathon (2nd Hussars), Holland; Lieut. Acerbo (Novarian Lancers), Lieut. Bolla (Nizza Regiment of Cavalry), and Lieut. Starita (Guides Regiment of Light Cavalry), Italy; Lieut. Febrel (Royal Spanish Horse Guards, Madrid) and Captain Marquis Martorell (Princess's Hussars, Madrid), Spain. It was not a competition, but as a souvenir of the occasion each officer was presented with a gold cigarette case.

The best of the performers over fences, mares or geldings, four years old or over, up to carrying from 12st. to 13st. to hounds, was Mr. Walter Winans's eight-year-old chestnut Harkaway, Lieut. Gaspare Bolla's Italia coming second, and Prussian Eagle, the property of Lieut. L. P. Thwaite (14th Hussars, Cavalry School, Netheravon), third. First prize, given by Lord Lonsdale, for the best officer's charger in a class open to all nations and all branches of the Military

service, was awarded to Lieut.-Colonel Gordon Wilson's (Royal Horse Guards) handsome eight-year-old blaze-faced black gelding Brampton, a decision which was warmly acclaimed, Lieut. Norton (15th Hussars) got second, and Lieut. Baron de Blommaert (2e Regiment des Guides) third, with Captain the Earl of Clanwilliam (Royal Horse Guards) reserve.

In the third stage of the high jump competition All Fours, last year's champion, Lieut. Daufresne's ten-year-old bay mare Miss, Mr. Walter Winans's Lady Belle, Lieut. Giacomo Antonelli's Casternone, and Lieut. Giovanni Battista Volpini's Airone especially distinguished themselves.

For the champion high jump on the last day three Italians, two Belgians and one Englishman cleared 6 feet 2 inches. The raising of the bar to 6 feet 8 inches knocked out the Englishman (Mr. Buckland most pluckily riding with a broken foot), two Italians, and the Belgian All Fours. M. Löwenstein, his owner, was riding three horses in the event, and in spite of the most severe fall of the show rode finely to the finish. All Fours, it may be remembered, was an English horse, champion last year, after which he was sold by Mr. Glencross to M. Löwenstein.

For the 7-foot bar there remained only M. Löwenstein, on Réveur, and the inimitable feather-weight, Lieut. Zurlo, of the 23rd Umberto Regiment, Rome, on St. Hubert. Both had fine horses, but not to be compared with All Fours, who was upset by the storm of clapping that greeted him. The horse has a peculiar sensitiveness to noise. The Italian just failed at all three attempts. M. Löwenstein failed twice. At the third attempt not a tap or a scrape was heard as the horse wriggled over the bar.

A great shout filled the building. The rider swung his horse round triumphant, when, to the general consternation, the top bar very slowly toppled off the peg. Every Belgian in the hall shouted, 'Il n'a pas touché.' In the ring, in the boxes, and in the galleries a storm of excited comment burst out. The judges gathered in a knot. At last it was decided he had touched, and on points the Italian was judged the high-jump winner, with M. Löwenstein second.

Certainly the popular feature of the Show was the jumping. It was good to see British officers this year taking part and riding in uniform; the Army's thanks are especially due to Lord Lonsdale and Mr. Winans for the help and encouragement they gave to effect this.

Undoubtedly the foreign officers excel us in the art of training and riding show jumpers; we have the greatest admiration for the sporting way the best officers from other nations came over and have shown us not only what they can do but what splendid horsemen they are. That superb horseman, Lieut. Daufresne, of the Belgian Army, most gallantly remarked: 'In a few years we shall not be in it with you. Your horses are so much better, and your men ride well; but we have been at this game for ten years, and you have got to learn it.'

Let us hope that this will be so. As regards the other features of the Show (the hunting, driving, and polo classes) it was satisfactory to see English horses pre-eminent.



A Camel.
Despatch Rider.

THE CAVALRY JOURNAL

OCTOBER 1908

THE DESERT COAST GUARD

BY LIEUT. G. W. HERRINGHAM, *Inniskilling Dragoons*

The strength and composition of the Egyptian Coast Guard—The establishment of the Desert Directorate—Description of the country which they guard—The methods of the smugglers—The organisation of the desert patrols—An exciting chase and capture of smugglers—The personnel of the force—The camels which they use.

THE work of the Egyptian Coast Guard is interesting, both because the Guard watches a very extended line of frontier with a comparatively small force, and also for the extraordinary feats of its Arab trackers in finding and following up its enemies.

The Coast Guard is organised in three sections, of which two, numbering in all 1,000 Infantry and 400 Marines, watch the seaboard between Alexandria and Port Said, and the ports of Alexandria, Port Said, Ismailia, Suez, and Kosseir. The third section, called the Desert Directorate, watches the remainder of the seaboard and the whole of the land frontier of Egypt. The total strength of the Desert Directorate, which alone concerns us, consists of a Kainakam, or Lieut.-Colonel in command, two other European officers, 400 native non-commissioned officers and men, twenty-five horses, and 450 trotting camels. The camels are used both for riding and for transport purposes; they can carry about $3\frac{1}{2}$ cwt. of baggage.

The chief duty of the Coast Guard is to prevent any contraband from being smuggled into Egypt. But there is one article of contraband, namely hasheesh, which occupies their time and attention more than anything else. They are also frequently called upon to undertake police duties and detective work. Hasheesh is a kind of drug, made from a plant grown in Greece, which, when smoked, produces a sense of supreme happiness, and incidentally a state of extreme intoxication. It has much the same effect as opium, and is as bad for the constitution. Readers of the 'Arabian Nights' will be familiar with it under the name of 'bhang.' The importation of hasheesh is absolutely prohibited in Egypt. Consequently the price that can be obtained for it, if it can be smuggled into the country, is high; and the profits accruing from a successful venture amply repay the risks of capture, confiscation, fine, and imprisonment.

THE COUNTRY

The character of the country plays a very important part in the incessant warfare waged between Coast Guard and smuggler. For purposes of description it may be divided into two portions—that east of the Nile, known as the Arabian Desert, and that west of the Nile, known as the Libyan Desert.

The Arabian Desert varies in breadth from 70 to 150 miles, and stretches from the Ismailia Canal on the north as far as and beyond the Sudan Frontier on the south. It is mountainous and rocky in formation, hard and stony underfoot. Between Kenh and Suez there is a range of mountains running north and south for nearly 200 miles which is impassable for camels; otherwise caravans can go anywhere. Water is to be obtained in plenty from wells and mountain streams, but it is almost a superfluity, as the journey from the sea to the river never takes more than three days, which is easily within the capacity of any desert camel. This desert is inhabited by tribes of more or less nomadic Bedouins, living on their flocks and herds, after the manner of the patriarchs of the Old Testament. Each tribe is confined by

custom to a certain area of ground, but in that area they move about from well to well, and from pasture to pasture, as the spirit or necessity moves them.

The Sinai Peninsula is similar to the Arabian Desert in every respect.

The desert on the west of the Nile is of a somewhat different character. In places it is mountainous or hilly, and in others undulating or quite flat. It is monotonous in the extreme, and inhospitable, with but very little water. There are a few wells, and where they exist there are generally caravan routes, but the water is brackish and unpleasant. Occasional oases, such as those of Siwa, Baharia, Farafra, Dakhla, Kharga, &c., happily relieve this eternal monotony. These oases are joined together by caravan routes, which are mere tracks in the sand, but sufficient for the guidance of the commercial travellers who frequent them. Smugglers are not necessarily confined to these roads, and in fact do not often travel by them, unless they wish to confuse their pursuers by mingling their tracks with those of the ordinary traffic.

Further to the west, at a distance of 300 miles from the river, lies a tract of country, forgotten by the gods and unknown to men, a vast expanse of soft dry sand, blown by the wind into long ridges and troughs, running north and south. This is the country of the sand dunes, called by the Arabs the Gerûd. They were originally formed by the action of the wind, which rolled, continues to roll, and ever will roll the dunes like great sea-waves, changing their shape and position, and obliterating all marks and tracks by the incessant shifting of sand. Travelling over this sort of country, especially at right angles to the dunes, is nearly impossible, a continual struggle up hill and down dale—they sometimes reach a height of 200 feet—the wretched camels sinking up to their hocks in the soft sand at every step. Sven Hedin, who crossed a similar desert, gives a most vivid account in 'Through Central Asia' of his terrible hardships and sufferings. He lost nine out of ten camels, and four out of six men, from

thirst and exhaustion, and was himself reduced for the last twenty-four hours of his journey to crawling on his hands and knees from sheer weakness. The importance of such a country to the Coast Guard lies in the fact that it protects by its very nature a large part of the frontier line.

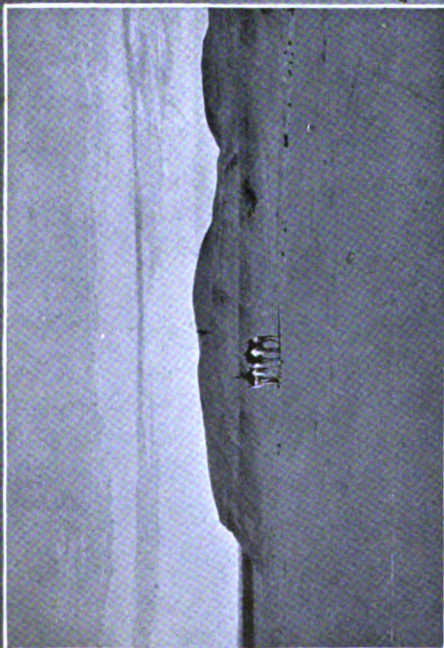
TACTICS OF THE SMUGGLERS

It is not for a moment to be supposed that the smugglers are never successful in getting contraband into the country, but, at the same time, the price of hasheesh is reliable evidence as to the efficiency of the Coast Guard. This has risen from between twenty and thirty francs a kilo. ten years ago to eighty francs at the present day.

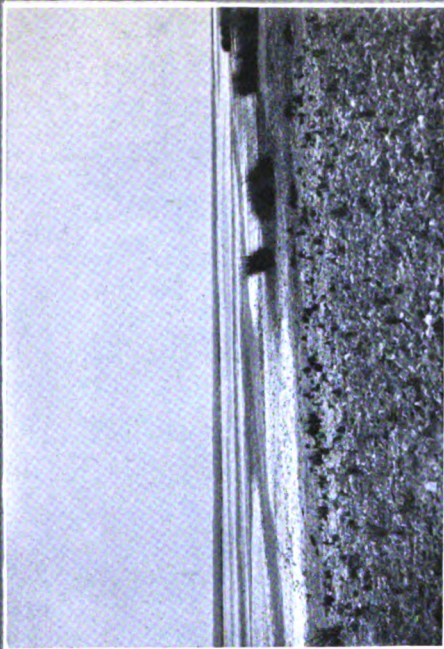
The smugglers can land their hasheesh either in Tripoli, or on the Egyptian coast west of Alexandria, or on the north coast of the Sinai Peninsula, or on the coast of the Red Sea. They then either store it in some secret place and wait for an opportunity of rushing it into the Delta, or else buy camels from a neighbouring tribe and start at once. Naturally their tactics constantly change to suit the circumstances of the moment. One of their hiding-places was lately discovered by a patrol on the east coast of the Gulf of Suez about seventy miles from the Canal. They had landed the hasheesh at low tide, hauled it by ropes up the face of a cliff and deposited it in a cave. When the tide rose their tracks were washed out, and no sign remained to give them away. They had evidently intended to transport it rapidly across the gulf in a boat, land it near Suez, and then make straight to Cairo or the Ismailia Canal on camels.

It is a favourite habit of smugglers to get the hasheesh through Sinai and across the Suez Canal. Thence they can rush it into the Delta in a very short time, and once they reach the cultivated ground it is almost impossible to follow their tracks. At other times they land it near Kosseir, on the coast of the Red Sea, and try to carry it from the sea across to the Nile. This is a short journey, although the routes are somewhat

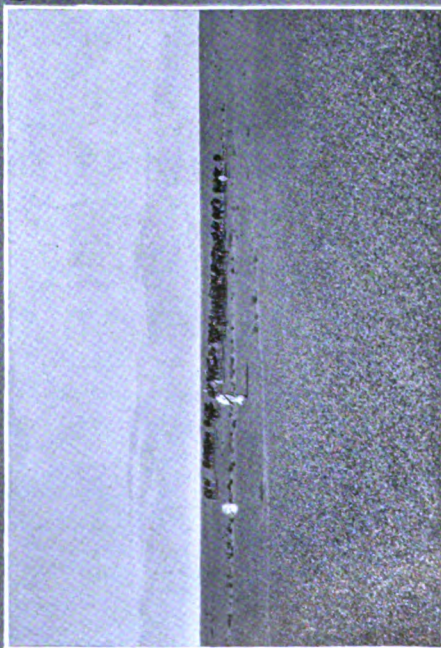
THE DESERT COAST GUARD



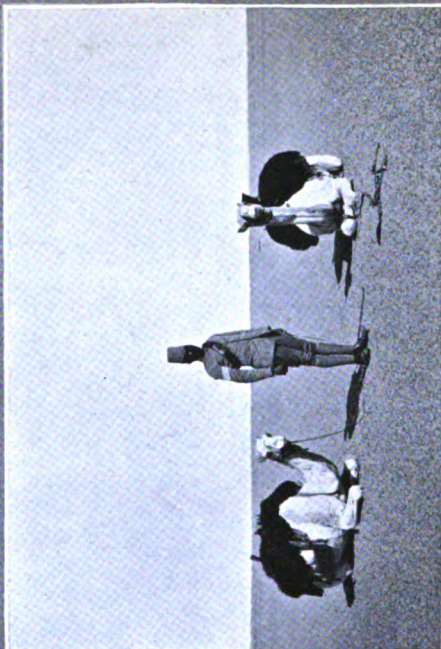
Near Wadi Nafron.



Wadi Nafron.



Herd of Camels.



Sergeant & Camels.

restricted by the range of mountains. Even if they reach the river, they have to take it all the way down the Nile past the Coast Guard Ports at Kenh and Assiût, and thus run some risks of capture.

They very often disembark in Tripoli, collect camels there, and then dash across the border-line, making for Alexandria or Cairo, or perhaps further south towards the Baharia and Dakhla oases, whence they turn north again in the direction of their market. These Tripoli camels are the hardiest of all, for they can go as much as ten days without water in the summer and a fortnight in the winter.

Lastly, they sometimes choose a place to land close to Alexandria, hoping, with the help of Allah and Mahommed his prophet to elude their enemies, and trusting to the speed of their camels to reach the cultivation before they can be caught.

The camels of the Libyan Desert and Tripoli, which the smugglers use, are slow camels, not moving faster than three miles an hour, but they are very enduring, and generally carry from two to three hundredweight. When hard pressed they march for twenty hours out of the twenty-four.

The camels of the Arabian Desert, on the other hand, are lighter but very fast. They only carry one hundredweight of hasheesh besides their rider, but they can manage nearly eighty miles in the day.

DISPOSITION AND TACTICS OF THE COAST GUARD

With a strength of 400 men all told—that is to say, the strength of a weak Cavalry regiment—the Coast Guard have to guard a frontier of no less than 3,000 miles in extent. It may well be said that under such conditions they must be weak everywhere, and strong nowhere. This is so, but they rarely have to oppose a force much stronger than one of their own patrols, and besides this they are so disposed that each patrol can rely on the support of another patrol in flank or rear.

Originally what may be called the line of observation and

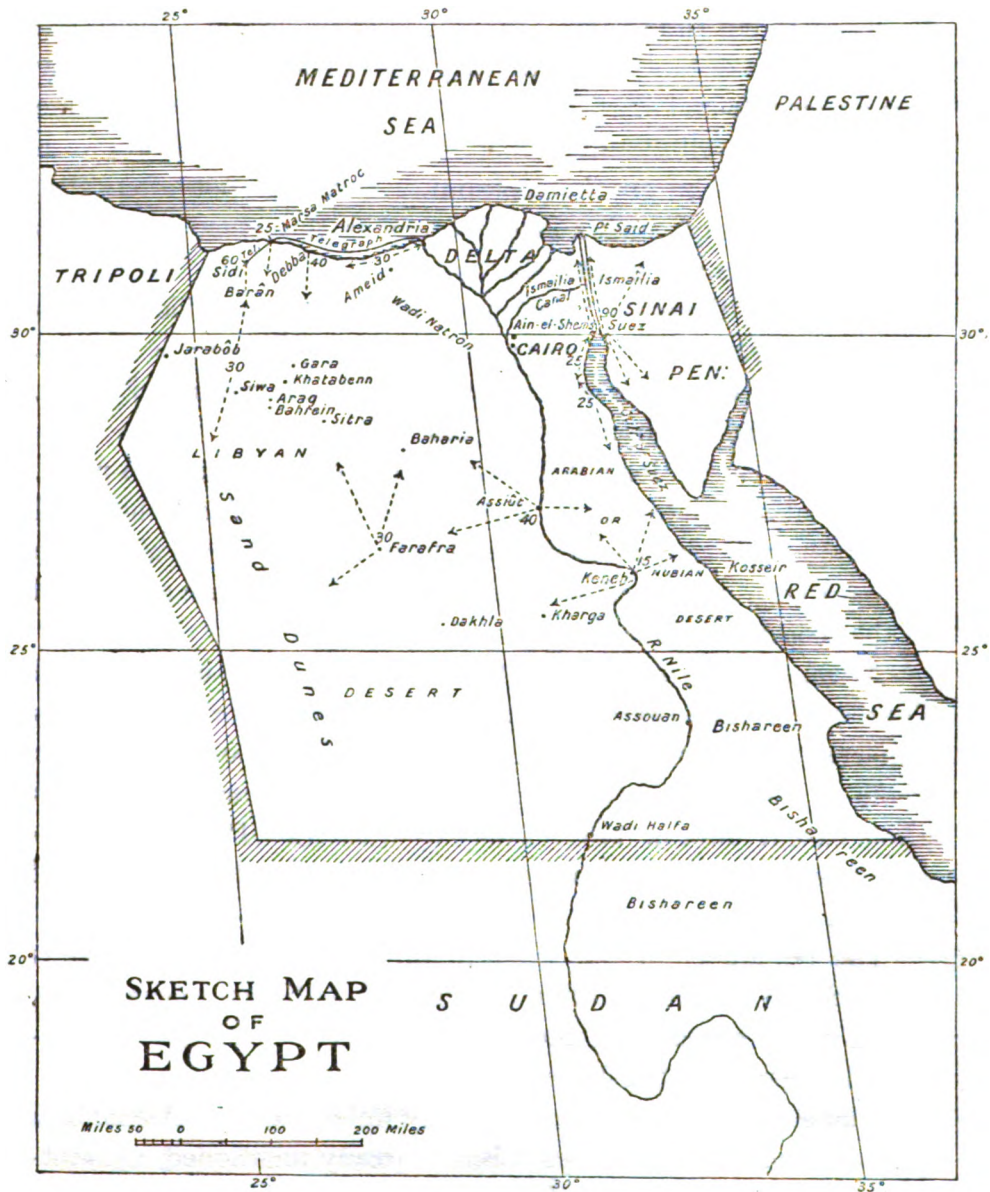
resistance which encircled the Delta was only about 100 miles distant from Cairo. Subsequently it was extended to a radius of 200 miles, and now it is as far as 300 miles away. Thus their strategy has become bolder and at the same time more successful, for if the tracks of smugglers are picked up crossing this line of observation there is more chance of overtaking them in a race of 300 miles than in one of only 100 miles.

The dispositions of the Coast Guard headquarters and patrols are as follows, though neither the places nor the numbers must be taken as absolutely correct, since both are liable to be changed in order to counteract the moves of the smugglers and to avoid getting into a routine of which their adversaries would take full advantage :

Westwards of Alexandria for a distance of about eighty miles along the coast is scattered a force of thirty men mounted on horses and divided into small patrols.

On the Tripoli border about ninety men are distributed between Marsa Matroo on the coast, Sidi Barân and Siwa, with posts at each of these places, and there are forty men at Debba, fifty miles east of Marsa Matroo. From Sidi Barân to Marsa Matroo there is a telephone wire, and from that place telegraphic communication to Alexandria. At least once in every forty-eight hours mounted trackers ride north from Siwa and south from Sidi Barân, meeting half-way. They then turn and ride back. In this way they are bound to cut all tracks crossing their line of march. If the tracks of smugglers are discovered, the tracker rides as hard as he can go to Sidi Barân, and a patrol is dispatched in hot haste after the caravan. A telephone message is sent at once to Marsa Matroo, and that station sends another patrol either to cut off the smugglers or, if too late, to pick up their trail and give chase. Similarly a telegram is sent along the coast to Debba and to the horse patrols to the same effect.

In the same way trackers ride periodically from Siwa, two or three days' journey southwards into the region of the sand dunes, to cut the tracks in that direction. If the smugglers manage to



make a wider detour to the southwards, out of reach of the Siwa patrol, they run the chance of being caught by a post of thirty men stationed at Farafra, who constantly send out patrols in all directions to cut the tracks. If signs of smugglers are discovered by these more distant posts, all they can do is to collect as many men as possible and start in pursuit themselves, at the same time dispatching a well-mounted man to Assiût or Keneh to warn their friends to be on the look-out. But it is not often that smugglers attempt such a long journey as this, since it involves severe hardships and great risks.

At Keneh there is a small post of fifteen men which patrols towards Assiût and Kosseir; and at Assiût there is a post consisting of about forty men which patrols towards Farafra, Keneh, and the mountains to the east.

South of Suez, along the coast of the Red Sea, are two posts, each twenty-five strong, at distances of fifty and one hundred miles from the canal, which are able to cut the tracks along the seaboard both north and south of them if landings are attempted on that coast.

At Suez there is a strong force of ninety men under an old Turkish Bimbashi (Major), who can neither read nor write, but is a marvel at effecting seizures. This force is responsible for the whole of the canal, both banks of which are traversed along its whole extent once or twice a day by trackers. Patrols are also sent into the Sinai Peninsula and down both sides of the Gulf of Suez.

The remainder of the strength of the Desert Directorate is to be found at the headquarters at Ain-el-Shems, near Cairo, where there are always men and camels recruiting after prolonged absences in the desert.

Along the stretch of coast eighty miles west of Alexandria are stationed small horse patrols, as already mentioned, amounting in all to thirty men. It is their duty, besides assisting the posts on the Tripoli frontier, to prevent smugglers landing contraband on the coast near Alexandria and trying to rush it

into the Delta within the twenty-four hours. For this reason they are mounted on horses, which over short distances are faster than camels. Although not very sweet, there is also plenty of water along this coast.

The tribes inhabiting the Arabian Desert are a powerful auxiliary to the regular forces of the Coast Guard, since they are in a constant state of enmity among themselves, and are only too pleased to be able to give away their next-door neighbours by proving that they have allowed smugglers to pass through their country without reporting the fact, and they are glad enough to earn the rewards offered for such information. The Coast Guard thus gets the required information without any unnecessary expenditure of men and camels, and holds the balance between the tribes by fostering their internal jealousies and feuds.

The following extract from a report on the Desert Directorate gives a good example of the work which the Coast Guard are called on to undertake.

On June 25 at the oasis of Arag, Yousb. Radwan Eff. Salim met suspicious tracks of camels which had been watered there, apparently in great haste, and which were accompanied by a large number of Bedouins. He therefore took a short cut to Sitra, to which the tracks pointed, arrived there before the smugglers, and lay in ambush on the track leading from Bahrein to Sitra, along the northern edge of the sea of sand dunes. At 11 P.M. he heard the smugglers coming and surprised them. After an exchange of shots, which resulted in one camel being killed, he caught thirty camels laden with 2,470 kilos. of hasheesh, and, fortunately, on one of the camels seized ten Martini rifles and carbines with 1,800 ball cartridges. At midnight the smugglers retired in the pitch dark with six to eight camels, thinking that they had to deal with a very strong force. At dawn, however, the smugglers, who numbered twenty-six, seeing that the patrol only consisted of two officers, five men, and two guides, attempted to recover the hasheesh, but they were

disheartened at the loss of their camels and the ten rifles. They followed the patrol for three hours, firing at our men at a very long range, with the result that one camel was wounded, and they then disappeared. In the afternoon of the same day, at Khatabenn, between Arag and Gara, Yousbashi Radwan Eff. met a Debba patrol under El Mulazim Awal Nimr Eff. Aly consisting of eleven rank and file.

El Mul. Awal Nimr Eff. Aly at once decided to follow up the smugglers and try to arrest them and seize the remainder of the convoy. He left Khatabenn on the 28th, and saw from the tracks at Sitra that they had stolen and taken with them twenty camels which they had found grazing there. After an exciting chase of 170 miles, through a desolate desert unknown to all the members of the patrol, he sighted at noon of the fourth day after his start from Khatabenn the smugglers in a camp on the cliff overhanging the Baharia Oasis. He then surrounded the Bedouins and asked them to surrender, but they opened fire and tried to escape. The patrol, however, caught seven of them, eight camels with 295 kilos. of hasheesh, and the twenty stolen camels.

At that time, an Ain-el-Shems patrol was guarding the wells of Baharia Oasis. Hearing the firing in the distance, the members of the patrol jumped on their camels without taking time to saddle them and captured twelve of the fleeing smugglers as well as their rifles, so that out of twenty-six smugglers only seven escaped, and I understand that one of them was wounded.

Two important lessons can be learnt from the work of the Coast Guard: firstly, how to dispose troops in order to guard an extended line of front and watch every approach, at the same time providing supports wherever required; secondly, how to supplement a weak force, by taking advantage of the natural difficulties of the country, by forestalling the plans of one's enemies, and by making use of local intelligence. A third lesson may also be learnt from their employment of trackers,

though civilised people can hardly do more than appreciate the advantages of their skill without being able to learn more than the elements of the art.

PERSONNEL

The rank and file of the Coast Guard are recruited mainly from the Sudan. Some come from Upper Egypt, and they have even been known to hail from West Africa, having been enticed on their way back from the Mecca pilgrimage by the hope of gain and the love of fighting. They are enlisted for three years, after which time they can extend for further periods of three years, provided they are suitable. They are paid at the rate of £2 a month, with the possibility of small additions for good service, and of substantial prize money for seizure of contraband. They are given uniform and quarters free, but have to provide their own victuals. This represents good wages for them, as the normal wage for labour in the Sudan rarely exceeds one shilling a day.

Natives vary very much in colour, character, and physique, but, generally speaking, the more nearly a man's skin resembles coal in the intensity of its blackness, the better fellow he is in every respect—braver, more faithful, and more amenable to discipline. With such men the difficulty is not to get them to fight, but to restrain their natural ardour and lust for blood.

In addition to these Sudanese, who form the bulk of the corps, there are a certain number of Bedouin Arabs who are employed as trackers. These sons of Ishmael cannot be enlisted in the ordinary way, as they refuse to submit to military discipline or to be fettered by any conditions of service; but they come for the sake of the pay and for love of adventure; they remain as long as they choose, and when they get very homesick, they return to their deserts and their tents. It requires considerable tact and knowledge to deal successfully with such men.

THE CAMELS

The home of the Coast Guard camel is in the Arabian and Nubian Deserts. Perhaps the best camels of all come from the country near the Egyptian-Sudanese border, inhabited by the Bishareen tribe. In his native desert a good camel costs from £10 to £15. At Assouan on the Nile they fetch £15 to £20. In Egypt they run to upwards of £20. Only stallions are sold out of the country, the mares being retained by the Bedouins for breeding purposes.

The chief characteristics of these camels are their powers of endurance, their speed, and their capacity for doing work on little food and no water. In the ordinary course of events a camel is not watered more than once every four days. In case of necessity he can go without water for a week in the summer and for more than a fortnight in the winter, provided there is a certain amount of moisture in the grazing. In their native country they depend for their food entirely on grazing, but when they enter the service of the Khedive they are given a ration of 10 lb. of millet and 8 lb. of chopped straw. This is rather less than a horse's ration, but they supplement it by grazing.

The ordinary pace of these trotting camels is an easy amble of five or six miles an hour, but when pushed they can go as much as twelve miles an hour, or sixty miles a day for three or four days at a stretch. Although a camel makes a great fuss when he is being mounted or loaded up, he is as patient and long-suffering under hardship as a donkey, and often the first symptom he shows of being knocked up through overwork or privation is to drop dead in his tracks.

FAMOUS LEADERS OF CAVALRY

By COLONEL H. DE B. DE LISLE, C.B., D.S.O., *the Royal Dragoons*

No. II.—OLIVER CROMWELL

An appreciation of Cromwell as a Cavalry leader.

OF all the characters which have come down to us in the history of our nation, none is so surrounded by the haze of contradiction as that of Oliver Cromwell. Described by writers of his day as a saint, a cunning self-seeker, the hero of religious liberty, or the blood-stained usurper and regicide, according to the views of the writer, all agree with regard to his qualities as a soldier. When we consider the time in which he lived, and the influence that Cromwell exerted on our history, our Constitution, and on our national character, it must be evident that he was in all the circumstances of his life a great man. As a statesman he placed the welfare of the nation before the right of kings, and his bitterest enemies can only charge him with this crime—that ‘a man’s noblest mistake is to be before his time.’ As a soldier Cromwell stands on the same plane as Marlborough and Wellington, and in the opinion of recent foreign military writers he was the greatest leader of the three. As a Cavalry leader he was the greatest our army ever produced; and when we realise that until 1642, at the age of forty-two, he had lived as a country gentleman and a Member of Parliament, without any training to arms, his fame as a leader is the more remarkable. At the beginning of that year the breach between King and Parliament, intensified by bitter differences in religious opinions, had become irreparable. None realised this more truly than Oliver

Cromwell, the Member of Parliament for Cambridge. He at once set about making preparations for the defence of that city, and on his own initiative raised from among the landowners of the adjacent counties a troop of horse. So carefully were the men recruited, that these sixty troopers, imbued with the spirit of duty and self-sacrifice, became the nucleus of the most remarkable Cavalry the world has ever seen. Ten years later Cromwell became the Commander-in-Chief of the armies of England. On the battle-field, he had entirely crushed the armed strength opposed to him. In religion, he was the recognised leader of the most earnest among the conflicting sects. As a statesman, he had risen to the highest position possible for a man, and had refused to accept the petition of Parliament to become king.

The signal success of every enterprise undertaken by this remarkable man was due in a large measure to the clearness of brain with which he saw the important issues of any question, and the minute attention he gave to detail. From the first he realised that the value of his Cavalry depended on the quality of his recruits. His own troop was composed of men carefully selected as being 'honest and steadfast,' and who were from the first more earnest and better disciplined than the bulk of the army then being raised. After a year his troop had grown into a regiment of ten troops, and in the same year he sent his views to other leaders.

'I beseech you,' he writes, 'to be careful what captains of horse you choose, what men be mounted; a few honest men are better than numbers. I had rather have a plain russet-coated captain that knows what he fights for, and loves what he knows, than that which you call a "gentleman" and is nothing else. I honour a *gentleman* that is so indeed.' Such were to be his officers. Of his own men it is said that 'not a man swears but he pays his twelve pence; no plundering, no drinking, disorder, or impiety allowed.'

Macaulay, our great historian, describing this peculiar feature in Cromwell's army, writes: 'That which chiefly distinguished

the armies of Cromwell from other armies was the austere morality and the fear of God which pervaded all ranks. It is acknowledged even by the most zealous Royalists that in that singular camp no oath was heard, no drunkenness or gambling seen, and that during the long dominion of the soldiery the property of the peaceable citizens and the honour of women were held sacred.'

The great Civil War began on September 9, 1642, when Lord Essex took command of the Parliamentary army at St. Albans, and in May the following year we read of Cromwell leading his twelve troops of Cavalry and defeating twenty-four hostile troops of Royalist Cavalry at Grantham. In July 1643 Cromwell marched to the relief of Gainsborough, and suddenly found himself confronted by Newcastle's entire army. Cromwell, surprised by the hostile Cavalry, did not hesitate a moment, but charged at once 'in such order as they were.' The same day he successfully covered the retirement of the Infantry against superior numbers, falling back by alternate troops, and proved his tactical ability by carrying out this difficult manœuvre without loss.

At Marston Moor, in July 1644, Cromwell showed leadership of a high order, and when the allied armies of England and Scotland were on the point of being defeated by the Royalist army under the Marquess of Newcastle it was his timely and successful charge against Prince Rupert's Cavaliers which changed the fortune of the day. By his own gallantry and the resolute bearing of his troopers he earned from his brave opponent, Prince Rupert, the nickname of 'Ironsides,' and by this victory established the superiority of his Cavalry over that of the Cavaliers.

A year later at Naseby, Cromwell showed the advances he had made as leader of Cavalry, and the high state of efficiency to which he had brought his command. There Cromwell formed up his Cavalry in three lines, having learnt the value in Cavalry fights of the last formed body that can be thrown into the

balance. In this action Prince Rupert succeeded in defeating the Cavalry of the left wing under Ireton, whom he pursued so far that he was of very little use to his side for the remainder of the day. On his return he found that Cromwell, who commanded the Cavalry on the right wing, had broken the left and centre of the Royalist army.

Three times had Cromwell charged and rallied when he made his final attack on Prince Rupert's Cavalry, returning from a wild and disorganised pursuit. So well drilled were his troops that the result was decisive. Out of 20,000 men, King Charles lost 6,000 killed and wounded, and 5,000 prisoners fell to Cromwell's energetic pursuit, which extended over no less than fourteen miles.

Naseby decided the fate of the first Civil War, and from 1646 till after the decisive battle against the Scots at Worcester we find Cromwell in command of the Parliamentary forces in Wales, in Ireland, and in Scotland. In whatever position he occupied, as a leader of a regiment, a brigade, or an army, Cromwell showed himself a master in the art of war. His Cavalry is described by a German military writer as being on a par with the best European Cavalry of to-day. His strategic concentration, culminating in the decisive victory at Worcester, is a model for modern students, 'not Napoleon, not Moltke could have done better,' is the verdict of a strategist of to-day. As a statesman he not only deposed a king, but also dissolved a parliament; as Lord Protector of England he was as autocratic as any monarch, and had the moral control to refuse the kingship of England, Scotland, and Ireland.

NOTES ON THE AUSTRIAN CAVALRY OFFICERS' RIDING SCHOOL, AND THE BARRACKS OF THE 4th HUSSARS IN VIENNA

By MAJOR G. K. ANSELL, *Inniskilling Dragoons*

The Cavalry Officers' riding school—Device to teach a recruit to feel at home on a horse—Nose bands and snaffle bridles—Flooring of riding schools—Aiming figures painted on walls of barracks—Shooting in barracks with reduced charges—Sand tables—Instructional pictures—Hard ground for exercising on.

THE AUSTRIAN CAVALRY OFFICERS' RIDING SCHOOL IN VIENNA

EXCEPT for a little fencing and veterinary work this School confines itself to instruction in Equitation, and no attempt is made at teaching the young Cavalry Officers their duties generally, as is the case at Netheravon, Saumur, and Pinerolo.

There is little to note about the instruction given, except that the students work hard, and, their time being practically confined to riding, the course becomes rather a 'cram' in equitation.

They are liberally supplied with horses, and ride some six hours a day.

All Austrian Cavalry Officers are trained first of all in Brigade Schools, and only a selection are sent on to this establishment, where, with the exception of those found the least suitable at the end of twelve months (some 25 to 30 per cent.) they remain two years.

Most of the riding here consists of School work, but practice in out-of-doors riding is given at a country branch of the School, which is nothing more than a hunting establishment.

Here a portion of the students are sent each September, October, and November.

A General Officer is the Commandant of the School, and under him there are a number of Captain instructors.

As is the case at the French and Italian Cavalry Schools, none but officers instruct the officer students, in fact ours seems to be the only establishment of the kind where it is considered good enough to employ N.C.O.s as Instructors to selected officers of some five or six years' service.

DEVICE TO TEACH RECRUITS TO FEEL AT HOME ON A HORSE

As regards their equitation training, in a part of their instruction they lay stress on trying to make a recruit from the early stages forget he is on a horse, and thus pick up confidence and ride naturally without self-consciousness.

To this end they give him a ball tied by a few feet of string to his arm, and leaving the reins on the horse's neck, he rides about at a walk, throwing up the ball and trying to catch it.

Now this is quite a trivial point, but the principle underlying it is an important one.

One sees the same thing worked out more fully in polo, where a beginner will soon pick up a natural seat as, when playing, the one thing he cannot think about is his riding.

Of late years in our Cavalry we have been making use of many similar devices, but though throwing up and catching balls is mentioned in our 'Manual of Cavalry Training,' I have not seen it done.

I am drawing attention to it here as it seems a very suitable one for recruits in the early stages.

All such devices may be very good, if properly used and varied, but there is always the danger in their *raison d'être* being overlooked, and instead of being relegated to their proper place, and regarded merely as a means to an end, the skilful performance of the game itself comes into too great prominence.

NOSE BANDS AND SNAFFLE BRIDLES

Both in the training of their men and horses, great use is made of plain snaffles with a nose band.

These latter are worn below the snaffle; I have not seen them used in this way with us, but it might be worth trying. The advantages claimed are:—

(a) The nose band need not be worn so tight, as it is in a much more advantageous position for preventing a horse opening his mouth.

(b) It is less liable to gall, especially at the corners of the mouth, which, when the nose band is above the snaffle, often get pinched between the two.

FLOORING OF RIDING SCHOOLS

The Riding Schools are larger than ours, and, generally speaking, brighter and better lit.

A point I specially wish to draw attention to is the material used for covering the floor in lieu of our tan.

The foundation is ordinary hard clay or earth, no concrete; on this about three or four inches of plain sawdust is laid, and on this sawdust is a top layer consisting of some four inches of mixed sand and sawdust.

The result appeared to be a first-rate flooring. The horses did not slip, and there was little or no dust.

Compared with our tan, there was a complete absence of that nasty damp, fetid smell which seems inseparable from our schools.

Further, it is probably less injurious to the horses' feet than tan.

The French use a somewhat similar material, consisting principally of sawdust, and on entering a Riding School in either country one cannot help at once comparing them favourably with ours from a sanitary point of view.

AIMING FIGURES PAINTED ON THE WALLS OF BARRACKS

In addition to the usual small bull's-eyes painted on the walls round about the Barracks for aiming instruction, there were a number of small black figures representing single men on foot and mounted, troops of mounted men, in line and column, guns, waggons, etc.

These were drawn to scale so that at certain reduced and marked distances they appeared the same size as the objects they represented would if seen naturally at longer ranges.

It is submitted that this is worth trying. Stencil plates could be very easily and cheaply made, to show a mounted man both broadside and end on.

It is suggested that such figures should be shown at a scale of $\frac{1}{10}$ (the Austrians use smaller figures than this) to enable the ranges to be the more readily compared.

In this way, no matter at what distance you stood from the figure in Barracks, it would appear the same size as the object it represented at ten times greater range.

Thus it should be possible for a certain amount of instruction in judging distance to be combined with aiming drill.

MINIATURE RANGES IN BARRACKS.

The Austrians do not use Miniature Ranges as we know them, but nevertheless they carry out a considerable amount of musketry practice in Barracks, and even in their barrack-rooms, with their ordinary carbines and special ammunition.

The latter consists of cartridges with hollow bullets and charged with little more than loaded caps.

Hanging straw-mats were used to check these bullets sufficiently to prevent their damaging the walls.

SAND TABLES.

A sand table was used for instructional purposes. Though we have these, I am mentioning the matter as they seem to be more practical in the way they used theirs.

We are rather inclined to try and make up schemes for miniature War Games on ours, with the result that they are not of real practical value and are apt to deteriorate into 'Eye Wash,' only brought out at inspections and not made a real means of instruction.

The Austrians did not attempt opposing forces, and merely used the Table for very simple illustrations of the action to be adopted under certain circumstances by patrols, posts, etc.

Accompanying the Table were models of trees, houses, soldiers, such as are supplied at a toy shop.

Some such method as the following is used :—

The instructor would arrange an imaginary village, with a few houses, trees, roads, etc., and place a patrol of four or five men just coming into the neighbourhood.

He would then pick out one of his men and tell him to imagine himself in command of this patrol in a hostile country, and ask him to describe how he would set about reconnoitring the village; or again, arrange some simple illustration for reconnoitring a wood, seizing and holding a bridge, etc., etc.

Such simple schemes can be imagined and arranged *ad infinitum*, and would appear to be of much more practical use to troop commanders than the more ambitious ones which attempt opposing forces and War Games.

INSTRUCTIONAL PICTURES

Coloured pictures were hung up round the wall of the Squadron Lecture Room, to show various scenes connected with detached duties, such as :—

- (a) An example of a Cossack post with its sentry stationed where he could see without being seen.
- (b) A countryman approaching such a post and the sentry remaining quiet and hidden and not challenging until he has the countryman almost at the muzzle of his carbine.
- (c) On being challenged the countryman runs away instead of standing and doing as he is told, and is shot dead in consequence.

- (d) Another countryman being brought to an examining post.
- (e) A hostile patrol approaching and being induced to come into an ambush, etc., etc.

Such pictures as these seem to be particularly practical for teaching men and would be of great assistance to troop officers in giving lectures, by stimulating the imagination both of the lecturer and his audience.

The mere fact of looking at pictures will impress things on men's minds and help them to remember what they are told, besides making the lecture more interesting.

These pictures were apparently issued in regular lithographed sets, and were evidently drawn by someone with a vivid imagination and well up to the sort of instruction required.

HARD GROUND FOR EXERCISING

At an imperial Stud Farm near Trieste, where some six stallions and eighty brood mares are kept, I was much struck with the way they allowed animals they were showing to trot and gallop loose round an enclosed yard, where the going was as hard as iron.

On being spoken to about this, the Director of the stud said it hardened their feet and legs.

This is going back to Xenophon, who in his Instructions for Cavalry said that the war-horse should be taken out of his stable each day and tied up and groomed on a piece of hard rocky ground, so that his stamping should harden his legs and feet.

There is no doubt a good deal in this, and it is worth remembering for horses stationed at such places as the Curragh, where during the greater part of the year they can go out day after day, on soft going, and also for those that stand on peat moss litter.

In such cases the feet will get too soft unless some road work is constantly given.

NOTES ON MOUNTED COMBATS

By CAPTAIN C. F. VANDER BYL, 16th (*The Queen's*) *Lancers*

Teaching a man the art of fighting in mounted combats—The principles of fighting with a lance—The principles of fighting with a sword against a lance—Sword *v.* sword—Meaning of a 'parry and return'—Useful practices for mounted attacks—Some practices which should be discountenanced.

NOT so very long ago it was a by no means uncommon occurrence to see two competitors in Sword *v.* Sword, or Sword *v.* Lance, remaining stationary on their horses in the centre of a ring, and striking blindly at each other with their weapons. Such a method of fighting is far removed from the Cavalry spirit; and most certainly it is not mounted combat.

In all kinds of fighting on foot a man's feet and legs play a predominant part; for it is only by continual and careful practice that he can hope to acquire that perfect balance of body and quickness of movement which are essential to success in the assault. In mounted fighting this leg-work, which is so important a factor, is replaced entirely by the speed and handiness of the horse. On the same principle as a boxer, in his earlier lessons, should be taught to use his feet before he is even allowed to put on a glove, so should a mounted fighter be taught to ride his horse in the correct manner and to the best advantage before he is allowed to carry a weapon.

A lancer in a *mêlée* on open ground, over which he is free to move at speed, is probably equal to at least two, if not three, equally expert swordsmen; but in our competitions how many

men do we see who have been taught to use their lances properly ?

Attacking an enemy with the lance held under the right arm at the engage is only suitable when riding in a close order charge at knee to knee. It is true that the knights of old used to tilt at one another in this way ; but their lances were far too heavy and cumbersome to be used otherwise.

The first principle in fighting with a lance is that the attack must be delivered in a straight line, and the lancer must have his horse moving at speed. He should ride for the most part at the trail, so as to be able to use both hands on the reins, and thus obtain better control over his horse. When attacking a swordsman he should gallop straight past, but well wide of him, so as to be out of reach of his sword, and should deliver his point well to the right front from the hip, the lance being previously held with the butt over the horse's croup and the right elbow well to the rear. On passing his opponent, the usual mistake which a lancer makes is to allow his horse to turn at once and begin circling round. These tactics would be all right if fighting with a sword, but for a lancer they are totally wrong—the lancer after passing must continue to gallop on in a straight line for some distance so as to get well away from his opponent, whether his point has been effective or not. He should then pull up, using both hands on the reins, turn about as quickly as possible and, if necessary, have another run.

By turning to the left about at the end of his run he will find himself in a better position in which to deal with a quick adversary who has avoided his point and followed him up in order to close, as he will be able to meet him with his lance resting on his bridle arm, which is a strong position when obliged against one's will to fight at the halt. The butt should only be used as a last resource when compelled to fight at close quarters, which in the open should seldom or never occur.

If a lancer is closely pursued by a swordsman he should endeavour to keep him on his left rear and fight over his bridle arm.

He will then find it easy to lengthen or shorten his grip on the shaft, and the direction of the point can be far more easily kept than when fighting to the right rear.

A swordsman attacked by a lancer must at first be on the defensive. If the lancer attacks at speed, as he should, he will probably find it best to avoid his point by swerving slightly to one side. Should the lancer advance slowly, he may parry quarte and return with a cut at the cheek or arm. In either case he should turn and, following the lancer up at once, try to close with him, preferably on his right rear; and should he be so fortunate as to succeed in doing so before he can get in another run, he should keep tapping his lance near the point, when once found, with the edge of his sword until an opportunity occurs, as it soon must, of delivering an effective thrust with the sword point. When parrying quarte, great care should be taken not to beat the adversary's point downwards on to the horse's withers. This is a very common fault with beginners. If the parry is made correctly, the attacker's sword or lance point should pass clear over the horse's neck without doing any harm.

Should the swordsman be met by his opponent resting his lance on his bridle arm the point should be struck upwards by a strong beat with the back of the sword, as this is the only direction in which it can be removed.

In sword *v.* sword fighting the attack should be made with dash and the point, preferably preceded by a feint, delivered with vigour to the fullest extent of the arm to the right front. The body should be inclined well over so as to gain extra reach, the horse being ridden fairly wide of the opponent's. Should both competitors attack simultaneously a double hit will be the result, to avoid which a parry in quarte should be made by one of them with a return cut at the cheek. If the horses are moving past each other at speed it will be impossible to return with the point after making a parry, for, as it takes longer, there will be no time for it; and for this reason, if for no other, the cutting edge should not be done away with in our swords.

A good deal of doubt often seems to exist as to what is really meant by a parry and return. If a swordsman beats his opponent's blade to one side and immediately makes a cut at him, this is not a return, but is merely an indirect attack, the opponent's point having been first removed out of the way by a beat. Should, however, a swordsman, finding himself attacked, parry the attack, which would otherwise arrive home on him, and then return with a cut, this is a riposte, and should count as such, whether delivered at once, almost at the same instant as the parry, *tac-au-tac*, or with a pause, *à temps perdu*.

The right to riposte is only gone when the attacker has succeeded in releasing his weapon from the position in which the parry placed it.

A swordsman should never from choice engage an opponent on the left of his own horse. Should he be compelled to do so he should use the guard with the point down and the edge upwards, as it protects more of his body. This guard also covers more of the horse and rider when used on the right side ; but as most people seem to find that they can make the quarte parry more easily, the latter is perhaps preferable.

When engaged with an adversary who is incautiously pressing home an attack on the left rear, a sudden and unexpected backward cut round to the right, over the horse's croup, at the pursuer's right cheek will often be found effective.

A useful practice for mounted attacks will be found in riding past a head mounted on a post with a spring neck about six inches long, so that it will give when struck with a sword or lance point but fly back into position again.

The parries may be practised by sitting on a wooden horse and taking off sword or lance thrusts delivered by men running past on foot, remembering when making a parry always to practise the riposte.

One sometimes sees practices resorted to in mounted combats which, although not actually opposed to the rules, yet seem rather to savour of unfairness, and should therefore be

considered as bad form in fighting. Such, for instance, is the case of an indifferent swordsman who, preferring to fight at the halt and being afraid to rely on his parry, seeks to avoid being hit by hiding behind his horse's head, which he endeavours to keep between his body and his opponent's weapon. In actual battle his horse would first be wounded and rendered uncontrollable, and he would then be at the mercy of his adversary.

Another case is that of a man who refuses to come out of his corner or away from the wall, hoping to make his opponent check his advance, or pull up altogether before reaching him. Such tactics would not be possible in the open, and indeed in a ring they may generally be frustrated by galloping past him round the sides the reverse way to the dial of a clock.

Again, a swordsman who seeks to avoid a lance thrust by leaning back in his saddle, so that the padded point may have nothing to fix on, should have hit after hit scored against him, because, if the point was sharp, it would not glance upwards, but would pass through the whole length of his body.

In competitions there has always been a great deal of difficulty in getting competitors to acknowledge when they are hit. A touch with a weapon on any part of the body, whether good enough to count or not, should nullify anything that comes after it until a new phrase is started. Many competitors seems to think that if they acknowledge, they are bound to have a hit scored against them. This is most certainly not the case, and indeed when a man acknowledges everything in a clear, audible voice he is far more likely to gain the sympathy of the judges, whose business it is to decide whether a hit is valid or not, than one who repeatedly goes on fighting after he has been struck by his opponent's weapon.

**SHORT ACCOUNT OF BRIGADE TRAINING.
SECOND CAVALRY BRIGADE**

BY MAJOR D'A. LEGARD (*Brigade-Major*)

Composition of brigade and assembly—Programme of training—Tactical problems—Reconnaissance scheme.

Salisbury Plain, August 1908.

THE 2nd and 4th Cavalry Brigades carried out their training this year on the north-west corner of Salisbury Plain.

Composition and assembly.—The Brigade was composed of the Queen's Bays from Hounslow, the 20th Hussars from Shorncliffe, and the Royal Scots Greys from Tidworth, the latter regiment being attached in place of the 7th Dragoon Guards, who were under orders to embark in September for Egypt.

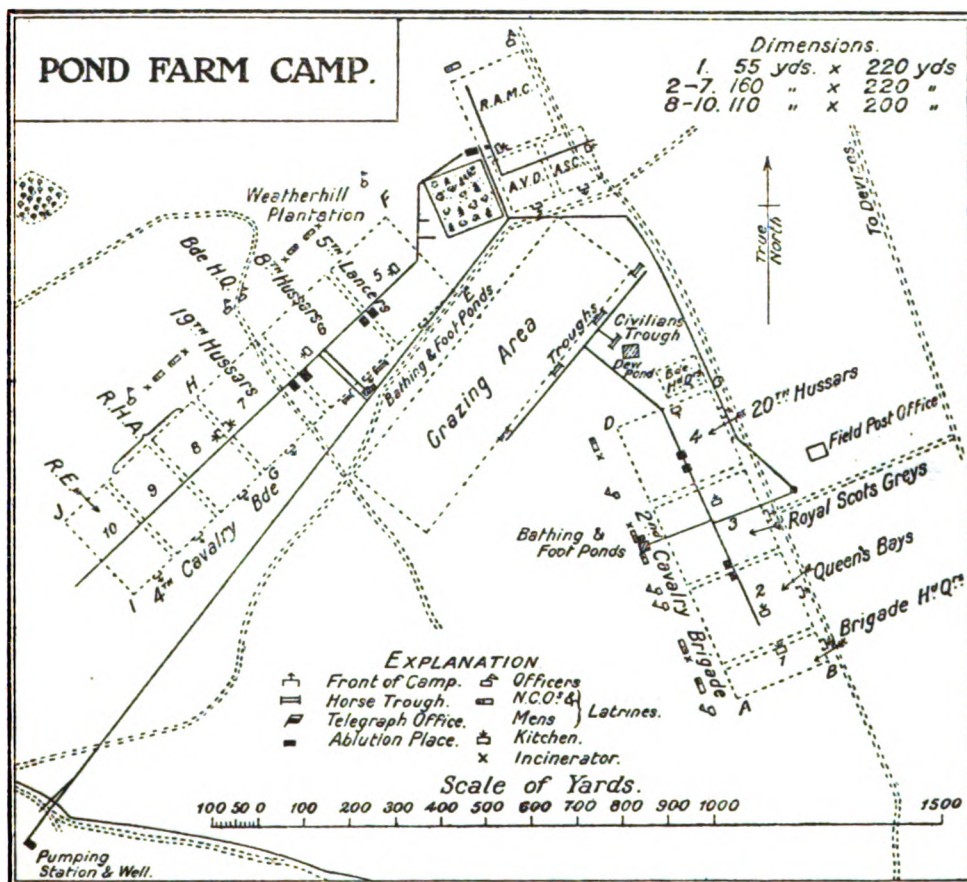
Regiments marched down to the Plain independently, preceded by Brigade Headquarters, and a small advanced party who came by rail to Amesbury to supervise arrangements for the reception of Units. By July 25 the Brigade was established complete at Pond Farm, seven miles south of Devizes.

Arrangements for a post and telegraph office, supply dépôt, medical and veterinary hospital had been made to supply the wants of both Brigades.

Programme of training.—Brigade Training was carried out from July 27 to August 15; divisional training from August 17 to 28.

SHORT ACCOUNT OF BRIGADE TRAINING 471

The weekly programme for Brigade Training was issued in advance, and was made up each week on the same general lines.



	Morning	Afternoon
Monday	Brigade drill and manœuvre at 6.30 A.M.	Tactical problem, 2.30 P.M.
Tuesday	Brigade drill and manœuvre at 6.30 A.M.	Tactical problem
Wednesday	At disposal of Officers commanding regiments	Half-holiday
Thursday	Brigade drill and manœuvre at 6.30 A.M.	Tactical problem, 2.30 P.M.
Friday	Brigade reconnaissance scheme	
Saturday	Brigade reconnaissance scheme	Half-holiday

The Brigade work in the morning lasted usually for two and a half to three hours, and was carried out early owing to the weather being hot.

The Brigade usually practised changes of formation for two or three miles on the way out from camp. A halt was then made, and a simple tactical scheme was carried out, the hostile Brigade being represented by mounted men with large flags, and the enemy's battery by a section of guns; the remaining four guns of the battery forming the battery in support of the Brigade. The officer commanding the flagged enemy was invariably given a free hand in making his dispositions, and was instructed to knock out the Brigade to the best of his ability. Anything in the nature of a 'set piece' was religiously avoided. Amongst other points on which special stress was laid, was the scientific combination of Horse Artillery and Cavalry, the guns being posted wide to a flank whence they could direct their fire on the hostile squadrons up to the moment of collision without being masked by their own Cavalry.

Tactical problems.—On three afternoons in the week small tactical problems were set in turn to officers commanding regiments. These were solved by selected officers, the action taken was criticised on the ground by the brigadier, and subsequently a discussion took place. It was found necessary to limit the number of officers attending from each regiment to six, with a proportion of horse-holders, otherwise the conference became too large for real instruction. A few examples of the problems set are given in Appendix A.

On August 7-8 the Brigade was engaged in operations against the 4th Cavalry Brigade.

It was assumed that the Brigade was marching west detached on reconnaissance duty, and that, having left a regiment and a battery on the Avon, it had reached Ell Barrow about mid-day. Here it encountered a complete Cavalry Brigade with Artillery, and was driven back to the Avon, where it took up an outpost line on the river line, supported by the other regiment and the battery.

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At 10 P.M. the Brigade received orders from Army Headquarters to disengage, cross the Avon above Fittleton, and continue its original rôle of reconnaissance towards Westbury.

The night-march was performed without interruption from the enemy, and the Brigade was adjudged to have successfully carried out its task.

Territorial field-day.—On August 12, all the troops on the Plain were engaged in combined operations under Sir Ian Hamilton, in accordance with a scheme based on the situation at Mars-la-Tour in 1870.

The most interesting phase from the Cavalry point of view, was the endeavour on the part of the Cavalry to gain time for the reinforcements to come up.

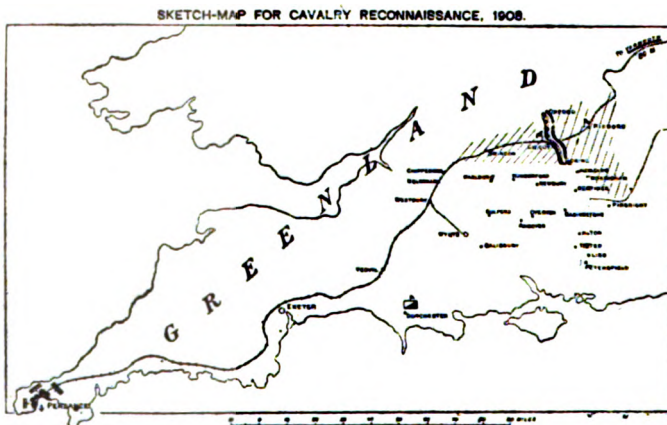
The 2nd and 4th Cavalry Brigades were combined to form a Cavalry Division under Brig.-General Allenby, and succeeded in delaying the advance of the enemy's Infantry for $\frac{3}{4}$ hour by a mounted attack, supported by the Horse Artillery.

Reconnaissance scheme.—Advantage was taken of the march of the Household Cavalry Brigade to Salisbury Plain to carry out an interesting reconnaissance scheme, the General and Special Ideas of which are given in Appendix B. The special object of the scheme was to gain instruction in the work of long-distance patrols and contact squadrons, and to practise the transmission of information from these bodies to the rear by all available means.

Owing to the reported positions of the hostile patrols when the Blue Commander received his instructions, it was impossible to prevent some of them reaching the railway, and thus discovering the movement of Blue troops from Penzance. He therefore determined to intercept the information on its way back to Red headquarters by locating and destroying the Red Cavalry force. With this object two contact squadrons left Pond Farm at 10.30 P.M. on the night of August 13-14 and marched towards Savernake and Andover respectively, patrols being pushed out still further to get touch with the enemy. (See map p. 474.)

The Blue main body marched at 6 A.M. on the 14th, and halted on the left bank of the Avon, where horses were watered and fed, and the men had breakfast, pending the receipt of information from the contact squadrons. Communication with these was maintained by means of the civil telegraph, cyclists, despatch riders, and, as long as the sun lasted, by heliograph, the prominent features, Beacon Hill, Sidbury Hill, and Easton Hill, being particularly well-adapted for the latter.

Towards mid-day it gradually became clear from reports that the Red main body, after passing through Andover, was advancing



on Tidworth. The Blue Brigade accordingly moved eastwards to Rabbit Hill.

The main object of the scheme had, however, now been attained, and the final encounter, which took place north-west of Shipton Bellinger, made a sporting finish to an instructive exercise.

This scheme concluded the Brigade Training, and the Divisional Training commenced the following week.

The weather throughout the Brigade Training was all that could be wished, and the horses did not appear to show any ill-effects from the work. A rest day allowed in each week in addition to Sunday perhaps accounts for this.

APPENDIX A

(See map, p. 483.)

SECOND CAVALRY BRIGADE.

TACTICAL PROBLEM, No. 1.

(Royal Scots Greys.)

Pond Farm, July 28, 1908.

An independent Cavalry Division, moving on Salisbury from the north, camps on the line Market Lavington—Eastcott (see map, p. 483) to-night, and will resume the march to-morrow morning.

As officer commanding advanced Cavalry Brigade, you are ordered to take up an outpost position for the night, covering the division.

A battery R.H.A. is attached to your Brigade.

An officer's patrol reported the hostile Cavalry Division yesterday at Fording-bridge, but no enemy has been seen as yet by your patrols.

You will give your outpost orders for the Brigade, and detail an officer to give the detailed arrangements he would make with rough sketch, for one section of the line.

N.B.—The advanced-guard for the day takes up the outpost line and occupies it till the advanced-guard has passed through on the following day.

TACTICAL PROBLEM, No. 2.

(Queen's Bays and 20th Hussars.)

(See map, p. 483.)

Pond Farm, July 30, 1908.

General Idea.—A Blue Cavalry Brigade from the north is advancing against a Red independent Cavalry Brigade from the south.

Special Idea. (Blue.)—The Blue detached Brigade, consisting of three regiments of Cavalry and one battery, has reached point 639 (1 mile south-west of Market Lavington) with its advanced party at New Farm, when information reaches the O.C. that a force of Cavalry estimated at three regiments and a battery R.H.A. has reached the Bustard. On riding forward he sees the Red advanced troops at the reservoir on West Down North Camp.

As O.C. give in detail how you will act.

Special Idea. (Red.)—A Red detached Brigade, consisting of three regiments Cavalry and one battery R.H.A., has reached Orcheston Down (on the Salisbury—Devizes road) with its advanced party at West Down North Camp, when information reaches the O.C. that a force of Blue Cavalry, estimated at three regiments and a battery R.H.A., has reached Market Lavington. On riding forward he sees the Blue advanced troops at New Farm, point 565.

As O.C. state in detail how you will act.

TACTICAL PROBLEM, No. 3.

(Third Field Troop, R.E.)

August 4, 1908.

Subject.—Forcing the passage of a river. The crossing effected by surprise—*e.g.*, Klip Drift, Brandy Station.

Special Idea.—A Blue Cavalry Brigade, forming part of the independent Cavalry of a large force, moving east in pursuit of a mixed Red force which has broken all the bridges, reached Netheravon mid-day August 4, and learns that hostile Cavalry patrols are still on the left bank of the Avon.

The G.O.C. decides to effect a crossing that night, and sends out officers' patrols in the afternoon to reconnoitre the river with a view to—

1. Pushing across small covering parties to seize covering positions on the left bank.

2. Crossing the Brigade somewhere between Fittleton and Syrencote.

As O.C., R.E., advise where and how the crossing should be made, and how the covering party should be put across.

N.B.—No fords exist.

Meet at the Cavalry School 3 P.M., August 4.

APPENDIX B

SCHEME FOR A CAVALRY EXERCISE TO BE CARRIED OUT BY THE HOUSEHOLD CAVALRY BRIGADE AND THE SECOND CAVALRY BRIGADE, AUGUST 12–15, 1908.
(*Vide* sketch map, p. 474.)

1. The scheme is intended to give special instruction in—

- (i.) Long-distance patrol work.
- (ii.) Reconnoitring squadrons.
- (iii.) Methods of forwarding reports.
- (iv.) Technical means of forwarding information.

2. The scheme is based on Mishchenko's raid in January 1905. The general situation is slightly altered to give an adequate objective for the operations.

General Idea.—3. A Red Army, based on Yarmouth (Harbin), is facing a Blue invading Army, based on Exeter (Dalny); a period of inaction has succeeded an indecisive battle, the forces being close to each other on the river line Oxford—Goring.

The Red Army is slightly the stronger, and is receiving constant small reinforcements.

Three Blue invading Divisions are, at the same time, besieging the important Red fortress of Penzance (Port Arthur).

The inhabitants in the theatre of war, Greenland, are an unwarlike race, harmless to either side.

The only line of railway that Blue have yet repaired is that running Penzance—Exeter—Yeovil—Chippenham—Swindon—Didcot; with a short branch to the

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important depôt of Wylie (Yingkou), this depôt is defended by about half a Blue battalion.

Special Idea. Blue.—Two Blue Divisions are being brought up from the besieging army round Penzance to the left flank of the main Blue Army about Oxford, with a view to an offensive move on the Red right flank.

An independent Cavalry Brigade has been refitting at Dorchester, and is marching to join the left flank near Oxford.

At 10 p.m., on August 13, the Second Cavalry Brigade from Dorchester is bivouacked at Pond Farm. The General Officer Commanding receives the following urgent message from the Commander-in-Chief, at Didcot :—

‘A Red force of Cavalry left the neighbourhood of Aldershot early this morning (13), moving due west; Red patrols have been seen between Newbury and Overton. One of our convoys, moving north, was captured to-day four miles north of Whitchurch.

‘It is most important that the enemy should not get information concerning our troops coming from Penzance.

‘Find out the numbers, direction, and object of the Red Cavalry move, and prevent their getting near the railway.’

***THE CAVALRY DIVISIONAL EXERCISES ON
SALISBURY PLAIN***

BY A SPECTATOR

Troops engaged—Divisional drill—Formations—Pursuit of beaten and isolated Infantry division—Field firing—Umpire's report—Sir John French's inspection—The lessons which he wished to drive home.

THE British Army War Establishments, 1907-8, gives the composition of a Cavalry division :—

Headquarters.
Four Cavalry brigades.
Cavalry divisional troops.

Artillery

Headquarters.
Two Horse Artillery brigades.

Engineers

Headquarters.
Four Field troops.

One Transport and Supply Column.
Four Cavalry field ambulances.

With the exception of one of its field troops, its transport and supply column, and its field ambulances, the Cavalry division assembled on August 15, on Salisbury Plain, for exercises under Major-General H. Scobell, C.B., was complete.

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The troops were camped as follows :—

WEST DOWN NORTH

Divisional headquarters. (Complete war establishment.)

Household brigade	{ 1st Life Guards	} Under Colonel Hon. C. E. Bingham, M.V.O.
	{ 2nd Life Guards	
	{ Royal Horse Guards	
1st Cavalry brigade	{ 7th Hussars	} Under Brigade-General Hon. J. H. C. Byng, C.B., M.V.O.
	{ 16th Lancers	
	{ 21st Lancers	

Divisional Artillery H.Q. Colonel E. J. Phipps-Hornby, V.C.

14th Brigade R.H.A. Major H. Rowse, D.S.O.

Divisional Engineers H.Q. Colonel A. E. Sandbach, D.S.O.

1st Field Troop R.E.

POND FARM

2nd Cavalry brigade	{ 2nd Dragoon Guards	} Brigadier-General H. D. Fanshawe.
	{ 2nd Dragoons	
	{ 20th Hussars	
4th Cavalry brigade	{ 5th Lancers	} Brigadier-General E. H. H. Allenby, C.B.
	{ 8th Hussars	
	{ 19th Hussars	

7th Brigade R.H.A. Lieut-Colonel P. H. Enthoven.

8rd and 5th Field troops R.E.

A skeleton (flags) Cavalry division (three brigades) under Major-General E. C. Bethune, C.B., complete with brigade, regimental, and squadron commanders, was camped at West Down South, and an excellent arrangement was made for military spectators in the form of a visitors' camp, close to headquarters, where some fifty Yeomanry officers assembled to watch the exercises, under the guidance of Major A. A. Kennedy, 8rd Hussars, from whom all information as to the operations, orders issued, etc., were obtainable each day.

The general programme of work indicated was :—

Monday, 17th	. } Divisional drill.
Tuesday, 18th	
Wednesday, 19th	. } Operations against the skeleton division, West of the Avon.
Thursday, 20th	
Friday, 21st	. Operations against the skeleton division, East of the Avon.
Saturday, 22nd	. Short day, West of the Avon.
Sunday, 23rd	. Rest.
Monday, 24th	. Operations against the 3rd Infantry division, West of the Avon.
Tuesday, 25th	. Field firing, West of the Avon.
Wednesday, 26th	. } Operations against the skeleton division under a scheme set by the Inspector-General of the Forces.
Thursday, 27th	
Friday, 28th	

Of the first week there is little to be said.

The division rendezvoused each day at 9 A.M. at, or near, Ell Barrow, and worked first southwards towards Knighton Down, and then back towards its camps, which it reached usually by 2 P.M.

To one who has attended Cavalry camps in India under the late Inspector of Cavalry, it may be permitted to remark that one missed here the usual clear cut lesson of each day's work, and that, to the spectator at any rate, it was not apparent what instruction the operations of each day were intended to bring home.

Two of the prominent features of the week were the size of the command, and the smallness of the ground.

The usual rendezvous formation, 'double column of brigade masses, with guns in mass on the right of the leading brigades, and Engineers and 1st Line Transport on the right of the rear brigades,' occupied an oblong of nearly 600 yards by 300 yards.

Divisional mass of the four Cavalry brigades without the

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guns occupied 850 yards by 60 yards; while the depth of the column of brigade masses at shouldering distance was 700 yards, and of the column of Regimental masses, half a mile.

The front of a brigade in line being 650 yards, the attack of the division must have at the least a mile of front, exclusive of the guns, and actually it seldom covered less than two to three miles.

The available ground west of the Avon is roughly a rhombus with diagonals $4\frac{1}{2}$ miles and 9 miles, and east of the Avon a 4 miles square.

Obviously this gives little enough room for the manœuvring of such a mass of Cavalry, and if Salisbury Plain is to become the scene of an annual concentration of mounted troops, to say nothing of the Territorial Army, a very much larger area will have to be acquired if full value is to be obtained.

The question arises, and will doubtless be seriously considered, whether the division of four brigades and divisional troops is not too big a command to be effectively handled by one man.

The German and French Cavalry divisions both have three brigades, and the usual formation is one brigade in first line, one in second line, and the third in reserve.

Major-General Scobell with four brigades had his choice of a preparatory formation between a double échelon with two brigades in first line (Fig. 1), or a sort of diamond-shaped formation, three brigades in double échelon with the fourth following in rear (Fig. 2).

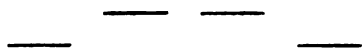


FIG. 1.



FIG. 2.

Fearing doubtless the obvious disadvantages of too big an initial first line he chose the latter formation, and it seemed that the fourth brigade could never get up in time to intervene as

indicated in Section 150, 'Cavalry Training,' where stress is laid upon 'the simultaneous action of all the brigades.'

On Saturday, 22nd, the Inspector-General of the Forces was present, and saw the division move at speed in close formation.

'Concealment combined with mobility,' Sir John French remarked, 'gives the essential element of Cavalry action—surprise.'

In order to take advantage of ground and move unseen, the Cavalry division, both brigades and guns, must occupy the smallest possible space, and to be able to move rapidly and change direction easily in compact formations is essential to the success of the near approach to the enemy; and thus Sir John drove home his first lesson, 'Pace and compression in getting within striking distance.'

On Monday and Tuesday, 24th and 25th, the Cavalry division starting from Perham Down was exercised in the pursuit of a beaten and isolated Infantry division, which had retired before it from Andover to the Avon.

It is difficult in peace exercises to arrive at the requisite demoralisation of a rout, and the beaten 8rd Division was found in effective occupation of a line from Mile Ball by Holmes' Clump to Silk Hill.

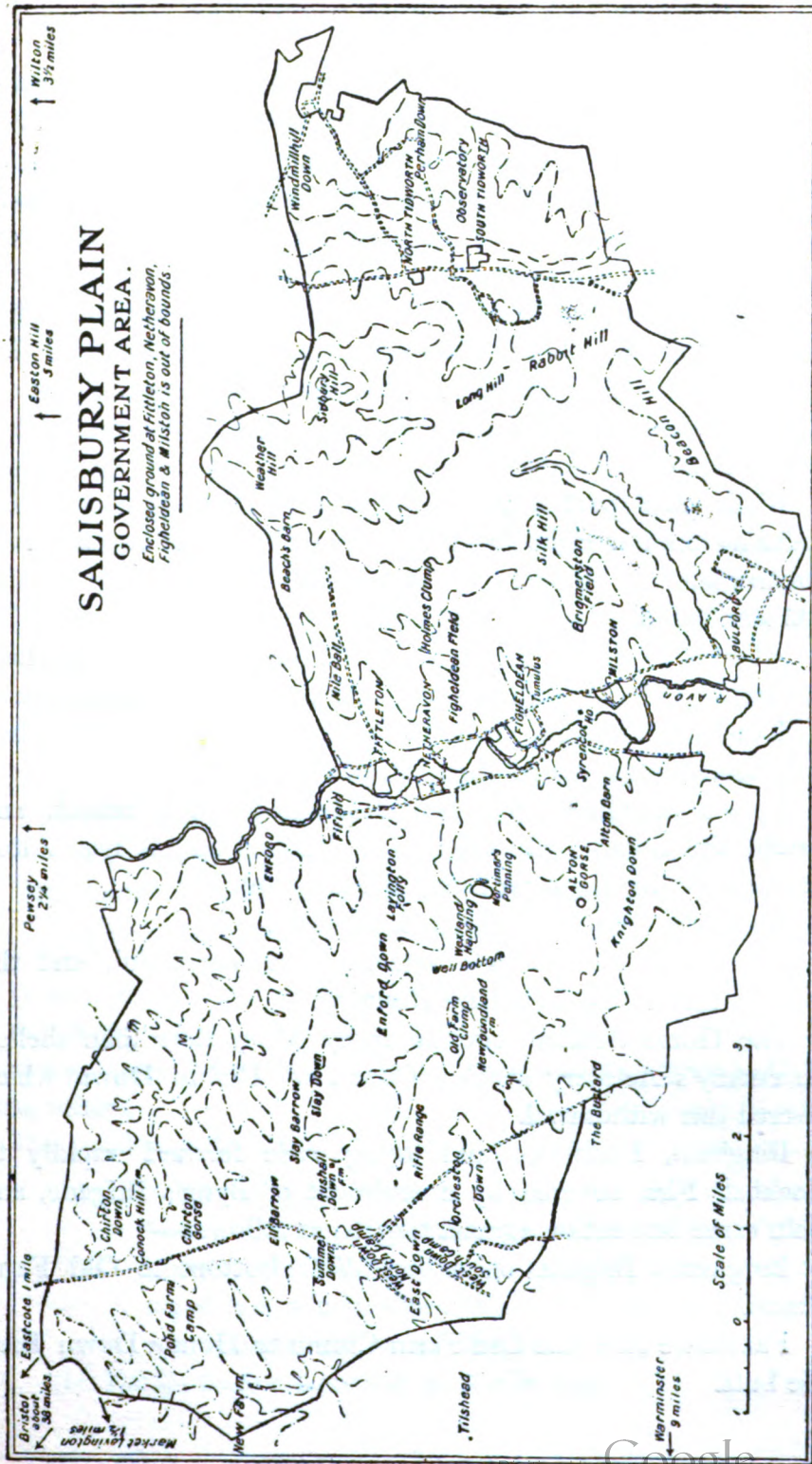
Demonstrating on his left with Byng's Brigade against Silk Hill, General Scobell took his remaining three brigades to Snail Down, and, after some delay, crossing the valley to Coombe Hill, turned south against the left of the 8rd Division on the Mile Ball Ridge.

This was captured by a costly frontal charge of two Cavalry brigades, but at the next ridge the attack failed and the 'cease fire' was sounded.

Sir Ian Hamilton's criticism pointed out:—

(a) The delay in pressing home the attack upon the demoralised enemy.

(b) The lack of cohesion between Byng's Brigade and the main attack.



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Further, he indicated how the problem might have been better solved by a combination of fire and shock ; a dismounted attack from the north on Mile Ball supported by the R.H.A. to draw the attention of the defenders from the mounted attack to be delivered opportunely from the direction of Beach's Barn and Haxton O.

That evening the 3rd Division was presumed to have withdrawn across the Avon, destroying their bridges and leaving detachments to hold the right bank ; next morning, August 25, targets replaced them, and the Cavalry division was exercised in field firing.

First, small parties swam the river and occupied covering positions on the right bank sufficiently far west to cover the construction of bridges by the Field troops R.E., and at 9.45 A.M. the division began to cross.

Allenby's Brigade crossed at Fifield and engaged targets near Lavington Folly, being eventually driven back on Netheravon.

Fanshawe's Brigade crossed between Netheravon and Figheldean, and engaged targets near Mortimer's Penning.

Byng's and Bingham's Brigades crossed at Syrencot, and turning the enemy's left, the former engaged targets near Alton Gorse, while Bingham protected the left flank.

The guns were unable to cross till later.

Fanshawe's and Byng's attacks were successful, and the enemy withdrew by Wexland Hanging.

The Horse Artillery coming up by Alton Barn then shelled the enemy's Artillery at Fox Covert on Enford Down, which covered this withdrawal.

Bingham, Fanshawe and Byng rode forward rapidly to Blackball Firs, covered by a regiment of Byng's Brigade, and again came into action against targets, as follows :—

Bingham's Brigade on a line Well Bottom to Old Farm Clump.

Fanshawe on a line Old Farm Clump to Honey Down Barn rifle butt.

Byng took position on the extreme left at West Down North.

The R.H.A. came into action again on Fanshawe's left against Artillery on Slay Down, changing on to Compton Bake to repel a counter-attack, and Allenby rallied and came up on the right west of Lavington Folly.

Finally all the brigades advanced mounted, Byng making a flank attack eastwards from West Down North.

The Umpire in his report states that the second set of targets on the enemy's right, representing Infantry entrenched, were much more difficult and at longer range than the first set, representing Infantry in the open, and were designed to give commanders practice in applying rifle fire to areas and lines where the enemy is known to be, rather than to test troops in shooting at a mark.

The percentage of hits to rounds fired is worked out as follows :—

Byng's Brigade, which fired in the first phase only	3·25%
Fanshawe's Brigade, which fired in both phases	1·59%
Allenby's Brigade, which fired in both phases, but at the less difficult targets	4·24%
Bingham's Brigade, which fired in the second phase only, and at the most difficult targets	·5%

It was the Umpire's opinion that, considering the difficulty of the targets and the longer ranges, the actual shooting of Fanshawe's and Bingham's Brigades was at least as good as that of the others.

The musketry details alluded to in the report are these :—

- (a) The rate of fire was not changed—it was observed that when it was possible to see the strike of the bullets, commanders of fire units did not order a rapid fire, which, when the range had been found, would have been most effective.

- (b) Range-finders were not, as a rule, used.

- (c) Ranges, when ascertained, were not passed on, and there was little, if any, communication between larger units as regards range.
 - (d) When targets are indistinct, it is very difficult to direct the fire so as to cover a certain space of ground. The School of Musketry, Hythe, recommends a method of using the hand held out at full length, and describing the ground by one or two fingers right or left of a prominent landmark.
4. Cover was on the whole taken advantage of.
 5. *Machine guns*.—Instances occurred of these guns being brought up when under fire of the enemy, and manœuvred along the firing-line in full view.
 6. The whistle to 'cease fire' was not promptly obeyed, and was not passed on down the line by units.

The Artillery fire in the second position was exceptionally effective, the 7th Brigade hitting every dummy but three in the battery which was their target on Slay Down.

The burst of rapid fire which preceded the final advance was a revelation of the power of quick-firing guns.

On August 26, 27, and 28, Sir John French carried out his inspection of the Cavalry Division under a continuous General Idea, designing the operations to give instruction in three separate phases of the employment of Cavalry :—

- (a) 'The approach within striking distance of the hostile Cavalry,' Section 149, 'Cavalry Training'; and 'The Cavalry Fight,' Section 150, 'Cavalry Training.'
- (b) The reconnaissance of the enemy's main position, when the principal obstacle represented by the hostile Cavalry has been removed by victory in the Cavalry fight.
- (c) 'Co-operation with other arms on the battlefield,' by (1) deception, (2) support.

Briefly the General and Special Ideas placed one Red Infantry Division at Eastleigh moving *via* Salisbury towards

Bristol, with a Red Cavalry Division at Andover, whose task it was to overthrow two Blue Cavalry Brigades opposed to it, and locate a Blue Infantry Division reported near Trowbridge, probably moving towards its main army in the Swindon-Oxford direction.

At 10 A.M. on the 26th, General Scobell's advanced brigade (Byng's) was on the line Windmill Hill to Observatory, with the rest of the division coming up behind from the direction of Andover, the Blue brigades being behind the Silk Hill to Holmes' Clump Ridge.

The general line of advance was to Devizes, strategical patrols having been sent forward to locate the Blue Infantry Division, and tactical patrols, supported by two contact squadrons of Fanshawe's Brigade, to find the Blue Cavalry, whom it was General Scobell's intention to overthrow.

Securing the ridge of Sidbury Hill, the division moved on to Snail Down under cover of Weather Hill, the advanced brigade having concentrated behind Long Hill.

One regiment (Greys) was sent to seize Holmes' Clump while the remainder of the division, less Byng's Brigade, moved on behind Beach's Barn.

Skeleton squadrons were seen near Pearce's Barn, and the division formed for attack with Fanshawe's Brigade (now reduced to one regiment) reinforced by one regiment of Bingham's Brigade in first line, Allenby in second line on his left, and Bingham in reserve on the right.

The Greys at Holmes' Clump were in difficulties and Allenby was sent to their assistance, supported by Byng, who came up on his left, while Fanshawe and Bingham attacked the flags (one brigade plus one regiment) in their front near Pearce's Barn.

Allenby, finding no target, swept on with Byng by Silk Hill, and attacked some guns on Brigmerston Field.

The Inspector-General criticised severely this dispersion of force.

Concentration of force at the decisive point being the keynote of success in war, all unnecessary detachments must be avoided.

Byng's Brigade should have been ordered to join the division on Snail Down, his task of covering the exit from the defiles of the close country from Andover to Ludgershall being completed, and the division should have advanced concentrated from Snail Down to the Holmes' Clump Ridge, whence the plan of attack should have been made and executed by the division as a whole, pivoting on the guns and bringing all the brigades into action practically simultaneously and with the violence of a released spring.

The attack in this form was then carried out. Starting from N.E. of Holmes' Clump the guns were sent into action near the Wig, and the attack made from the direction of Figheldean Field against an imaginary enemy on Brigmerston Field.

August 27th, the division concentrated one mile east of Ablington. The Special Idea indicated that a 'Blue' force of Infantry and guns had left Warminster early in the morning moving eastwards, and that the Red Infantry division would march up to Amesbury that day: General Scobell's task was to report the strength and position of the Blue Infantry and guns.

Crossing the Avon at Figheldean and Syrencot under cover of Bingham's brigade holding Lark Hill and Knighton Down the division concentrated at Alton Barn.

Four officers' patrols had been sent towards

Market Lavington,
Imber,
Chitterne,
Yarnbury Castle,

respectively to find the Blue Infantry, and further tactical patrols to find the remnants of the Blue Cavalry still in being.

The Market Lavington and Imber patrols located the Infantry in position from Gibbet Knoll to Butler's Cross, and the Blue Cavalry were also placed near Ell Barrow.

The division moved to Newfoundland Farm, and thence advancing northwards to Ell Barrow came into collision with the Blue brigades on Summer Down before they could get away.

Here General Scobell had come under Field Artillery fire from the main Blue position, and, withdrawing behind Ell Barrow, he proceeded to carry out personally, and by means of officers' patrols, a methodical reconnaissance of the position.

On August 28, the Special Idea brought the main Red and Blue forces in close contact, and the Red Infantry division orders directed its real attack against the enemy's left flank, ordering the Cavalry division to deceive him as to its direction by moving against his right.

General Scobell carried out his *rôle* of deception most thoroughly; rendezvousing at Down Barn he led three of his brigades and his guns unobserved to the hollow south of West Down Plantation, while his fourth (Bingham's) protected his left against Cavalry enterprise.

The three brigades were ordered to attack dismounted, simulating an Infantry advance each on a front of 600 yards, Allenby's right being directed from West Down Plantation on New Copse, with Fanshawe on his left, while Byng swung forward his left by the Tilshead to West Lavington Road, so as to envelop the right of the enemy's position at Butler's Cross—the attack was not to advance nearer than about 1,000 yards from the enemy's lines.

The guns in concealed positions from West Down Plantation to Tilshead Down posed as Field Artillery supporting the attack, though in their case the deception was transparent to an enemy quick witted enough to pick up a spent shell; while the attack was in progress Bingham fought a successful Cavalry action north west of Tilshead.

At 11 A.M. the Cavalry was held to have fulfilled its *rôle* of deception, and was ordered to concentrate and move round under cover to the right flank to Chirton Down. By 11.30 A.M. the division was ready to move from West Down Plantation,

and passing by East Down, Rushall Down Farm, Slay Barrow, and east of Chirton Gorse and Conock Hill Farm, reached Chirton Down at 12 noon, about 7 miles in half an hour, in time to have co-operated with the main attack against Gibbet Knoll, and to take up the pursuit.

So ended Sir John French's inspection of the Cavalry division, and in a brief address he again summed up the lessons he wished to drive home :—

- (a) The necessity of rapid movement in close formations in order to approach an enemy unseen.
- (b) Concentration of force, in order to bring every possible squadron to bear simultaneously in the Cavalry fight, which is the first step to successful reconnaissance.
- (c) The necessity of a high standard of strategical and tactical knowledge on the part of Cavalry officers, to enable them to carry out their reconnaissance and appreciate justly the value of what they see.
- (d) The *rôle* of Cavalry in co-operation with other arms on the battle-field, firstly in deception, secondly in support at the decisive point, and finally in the pursuit without which no victory is complete.

THE HISTORY OF THE BAYONET

By B. E. SARGEAUNT, *Assistant Curator, Royal United Service Museum*

Date of the introduction of the bayonet into England—The plug, ring, and socket bayonets—The evolution of the sword and knife bayonets.

THE bayonet may be claimed to have been introduced by the Cavalry branch into the British Army, for it was first issued to Dragoons, though at that time they might perhaps be regarded as Mounted Infantry. The weapon was actually known in France during the latter part of the sixteenth century, but only in a sporting capacity, and in Cotgrave's 'Dictionary,' first published in the year 1611, it is recorded: 'Bayonette, a kind of small flat pocket-dagger, furnished with knives or a great knife to hang at the girdle like a dagger.' As a military arm the bayonet was not very much used before the year 1650. It was, however, in use in 1647, for in the 'Mémoires de Jacques de Chastenet, Chevalier, Seigneur de Puységur,' published at Paris in 1747, it is stated, in Chapter VIII.: 'When I was in command at Bergues, at Yprés, Dixmude, and Laquenoc, all the parties that I sent out crossed the canals in this fashion. It is true that the soldiers did not carry swords, but they had bayonettes with handles¹ one foot long, and the blades of the bayonettes were as long as the handles, the ends of which were adapted for putting in the barrels of the fusils to defend themselves when attacked, after having fired.' This earliest type of plug-bayonet possessed

¹ The earliest form of plug-bayonet was of very rough manufacture. The second type, possessing pommel and guard, was made more elaborately. Most of them were produced in Germany.

neither guard nor metal pommel, the handle being of wood. Those with guards and pommels of metal were introduced in the year 1680, and existed up to the year 1706.

It must be remembered that the musket at its origin, in the sixteenth century, was a most heavy and awkward weapon. Invented abroad, like almost every other military weapon (for none can be claimed by these islands), it was necessary to fire it over a rest (*fourchette*) since its weight prevented its being discharged without this assistance. The process of loading was very slow, and Sismondi even states that it occupied a quarter of an hour. Elsewhere¹ it is stated, on good authority, that six arrows could be discharged while the musket was being loaded.

For some time after the year 1647 the bayonet does not seem to have been very popular, perhaps owing to the size of the musket then used, and no doubt for this reason no mention is made of it in the '*Mareschal de Bataille*' of Lostelneau, a work published late in the year 1647. As soon, however, as the fusil was introduced the excellence of the bayonet was at once recognised, and the first French regiment to be armed with it was that of the Fusiliers, afterwards the Royal Artillery, the function of the Fusiliers being to protect the guns.

The musket, though a most cumbrous weapon, was used with much effect. The '*Souldiers' Accidence*' by G. Mark, as corrected and amended in 1643, gives no less than forty 'postures' for the musket which were 'only for Military Instruction in time of Trayning, and to make the Souldier most exquisite and perfect. But in the time of present Service before the face of the enemy, or in fight, then all this great number of postures the Capitaine shall reduce into three onely, and no more. The three postures or words of command which are used for the musket in the face of the enemy, in Fight, or in Skirmish are these: (1) Make Ready, (2) Present, (3) Give Fire.'

Sir James Turner, writing in the year 1670-71, mentions the use of the bayonet in the following words: 'And indeed, when

¹ *Weapons*, by B. E. Sargeant (Hugh Rees, 119 Pall Mall, 2s. 6d.), p. 47.

musketeers have spent their powder and come to blows the butt-end of their musket may do an enemy more hurt than these despicable swords which most musketeers wear at their sides. In such medleys, knives whose blades are one foot long, made both for cutting and thrusting (the haft being made to fill the bore of the musket), will do more execution than either sword or butt of musket.'

Thirty years before the close of the seventeenth century the bayonet was beginning to assume a recognised position in the vocabulary of arms. In the year 1671 a corps was raised in France armed with fusils and bayonets, and in England in the following year on April 2 a warrant was issued by King Charles II. establishing a Regiment of Dragoons, to be raised in twelve troops of four score in each, besides officers, to be commanded by Prince Rupert. The soldiers of the several troops were ordered to carry one match-lock musket, with a collar of bandoliers, and also one bayonet or great knife.

The bayonet was issued to the Fusilier Regiments in England for the same reason that it was given to the corresponding troops in France. The first English Regiment of Fusiliers was the 7th, raised in 1685. At first the chief duty of the Fusiliers was the protection of the guns. In Cannon's 'Records of the Royal Fusiliers,' King James II.'s orders for arming the Royal Fusiliers are quoted, and they run as follows: 'Our Royal Regiment of Fusiliers to have snaphance musquets, strapt, with bright barrels of three feet eight inches long with good swords, cartouch-boxes and Bionetts.'

The plug-bayonet was no doubt a very great assistance to the Fusilier, but it was certainly an impediment in so far as, while it was fixed in the muzzle, the weapon could not be fired. Again, it was of frequent occurrence that after a thrust the bayonet became so wedged into the barrel that it was impossible to extract it with ordinary force.

The result of these two main disadvantages was the introduction of a new bayonet which, when fixed, still admitted of the

fusil being fired. This new form was used in the Scottish War in 1689. Mackay says: 'All our officers and souldiers were strangers to the Highlanders' way of fighting and embattailing, which mainly occasioned the consternation many of them were in: which to remedy for the ensuing year, having taken notice on this occasion that the Highlanders are of such a quick motion that if a battalion keep up its fire till they be near to make sure of them, they are upon it before our men can come to their second defence, which is the bayonet in the musle of the musket; I say, the general having observed this method of the enemy, he invented the way to fasten the bayonet so to the musle without, by two rings, that the soldiers may safely keep their fire till they pour it into their breasts, and then have no other motion to make but to push as with a pick.'

These bayonets with the ring attachments seem, however, to have been in use some time before this mention of them by Mackay. Puységur states that they were used before the Peace of Nimeguen (1678), and he goes so far as to describe the manner in which the rings were attached, saying, 'A regiment was armed with swords without guards, but furnished with brass rings, one at the junction of the blade and the handle, the other at the pommel.'

In one of the campaigns in Flanders the British 25th Regiment, whose bayonets were made to screw into the muzzle of their firelocks, was attacked by a French Regiment which, having their bayonets fitted by rings over the muzzle, fired a volley and immediately charged them, greatly to their astonishment.

The ring-bayonet commenced to be superseded by the socket-bayonet in the year 1690. An excellent specimen of the early form of socket-bayonet is preserved in the Porte d'Hal Armoury at Brussels. It is not nearly so long as the second form of socket-bayonet introduced in 1697. In the year 1692 the bayonet for Grenadiers was longer than that issued to the battalion companies. In a warrant, dated June 30, 1692, for issuing bayonets to the

14th Foot, it is mentioned '500 bayonets, whereof 60 to be long for Granadeers.'

In the reign of Queen Anne every Infantry soldier was armed with a musket, bayonet, and sword, and the Grenadier ceased to carry grenades. The Dragoons, too, were still provided with bayonets. The socket-bayonet was in general use in 1708, and it was still issued to Light Dragoons for their carbines as late as 1808. The weight of the bayonet at this time was one pound two ounces.

In 1839 the flint-lock was removed, to give place to the new percussion system; but it was not generally adopted by the British Army until 1842. The bayonet for the new percussion musket issued in that year weighed one pound eight ounces, and it measured one foot five inches.

The Minié rifle, introduced in 1851, and used extensively in the campaign in the Crimea, led to the invention, in August 1852, of the 'Enfield three-grooved rifle'; this rifle possessed a bayonet which was secured with a locking ring. The Enfield rifle of 1855 was manufactured with shorter barrels for issue to the 60th Rifles and to the Rifle Brigade. The barrels of the rifles issued to these special troops measured two feet nine inches in length, and they were fitted with sword-bayonets. It must not be supposed that this was the first appearance of the sword-bayonet—in addition to its being used by riflemen and sergeants at this time it had been extensively carried even fifty years earlier. The Martini-Henry rifle was the last rifle to be fitted with the old pattern socket-bayonet with its triangular blade. In 1889 the invention of the Lee-Metford rifle saw the introduction of the knife-bayonet, a short two-edged weapon. This type is still in use at the present time, but it is to be succeeded forthwith by a one-edged sword-bayonet, five inches longer than the present knife-bayonet, and it is grooved or furrowed. The guard too curves over the edge like those on foreign bayonets, such as the Mannlicher. The method of attachment to the rifle is the same as that already used for the knife-bayonet. Whether the penetrating powers of

this new one-edged type will be equal to those of the old triangular bayonet is a matter which is open to doubt. The new weapon will unquestionably be found useful for other purposes, such as cutting brushwood etc., but these extraneous considerations should not be allowed to interfere with the fighting properties of the arm.

NOTES ON ILLUSTRATIONS

1. A plug-bayonet of the pattern in use between the years 1680 and 1706. At this time the bayonet was principally manufactured in Germany. The blade is 9 inches in length. Weight 8 ounces.

2. British socket-bayonet of the year 1853. It is $17\frac{1}{2}$ inches in length and weighs $13\frac{1}{2}$ ounces.

3. A sword-bayonet with a guard and plug method of fixture. It was manufactured at Solingen about the year 1684. The guard not being attached to the pommel bends outwards sufficiently to admit of the handle entering the muzzle of the musket. The blade is 2 feet 3 inches in length and the bayonet weighs 20 ounces.

4. The knife-bayonet as introduced in the year 1889 and in use at the present time. Length of blade $11\frac{1}{2}$ inches. Weight 16 ounces.

5. Belgian bayonet of the year 1850. The blade is 1 foot $9\frac{1}{2}$ inches in length and the whole weighs 29 ounces.

6. The new sword-bayonet for the British Army, now being manufactured. It is 5 inches longer than the present knife-bayonet. The method of fixing is the same. The blade is one-edged, and it is furrowed almost to the point.

7. The Brunswick sword-bayonet with brass guard and handle. Length of blade $22\frac{1}{2}$ inches. Weight 35 ounces.

8. Socket-bayonet of the time of King George III. (Indian pattern). Length 17 inches. Weight 16 ounces.

9. Sea-service bayonet of 1840. Length of blade 22 inches. Weight 26 ounces.

10. A plug-bayonet of the year 1680. Length of blade $11\frac{1}{2}$ inches. Weight 9 ounces.

11. A sword-bayonet of the year 1803. Length of blade 31 inches. Weight 32 ounces.

12. Sea-service socket-bayonet of the year 1820. Length 17 inches. Weight $15\frac{1}{2}$ ounces.

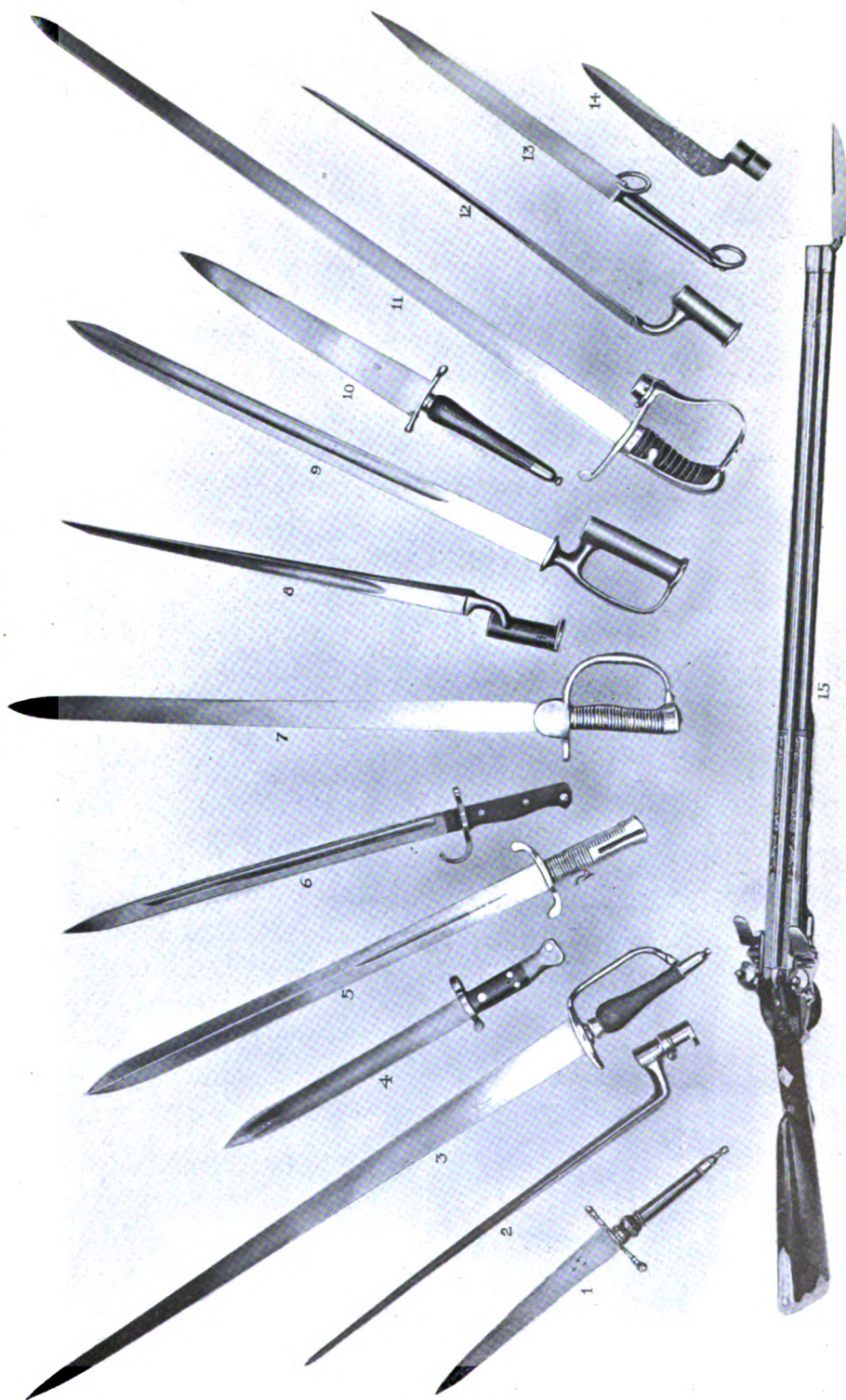
13. The ring-bayonet used at the end of the 17th century. The two rings fitted over the muzzle of the musket, which admitted of the weapon being discharged.

14. Short French socket-bayonet handsomely engraved, and therefore probably used for sporting purposes. It is only 7 inches in length.

15. Double-barrelled flint-lock fusil of the Emperor Napoleon I., now preserved in the Royal United Service Museum. The barrels are richly gilt, and fitted with a short bayonet, which fits over the barrels in fixing. The gun was found with part of the Emperor's baggage, which had been left behind at the Petrowski Palace, near Moscow, on the retreat of the French Army, in 1812. The fusil was given to Sir R. K. Porter by General Prince Alexander Sherbatow, a detachment of whose division of the Russian Army entered the Palace soon after its abandonment by the French.

TYPES OF BAYONETS.

THE CAVALRY JOURNAL--No. 12.



RELAY POSTS

A SYSTEM FOR THE TRANSMISSION OF INTELLIGENCE FROM STRATEGIC PATROLS TO ARMY HEADQUARTERS

By MAJOR D'A. LEGARD, *17th Lancers*

A system for the transmission of intelligence essential—The various means which may be available—Organisation of cyclist relay posts and mounted relay posts.

DIFFICULT as the task is for an officer's patrol to gather accurate information of the movements of the enemy's formed bodies, whether Cavalry or Infantry, it is simple compared with that of conveying that information back to headquarters.

To do this some systematic arrangement is essential ; no happy-go-lucky methods can be relied on to succeed more than once or twice, and certain principles on which a system may be based are put forward here.

Let us take the case of a patrol backed by a contact squadron.

The various means of sending back reports are :—

1. The despatch rider.
2. The cyclist, or motor cyclist.
3. The flag or helio.
4. The carrier pigeon.
5. Wireless telegraphy.
6. The telephone } with portable apparatus for tapping
,, telegraph } existing wires.
7. The telephone or telegraph with light cable.
8. The existing telephone or telegraph wires.

Of these the best, as being the quickest, is undoubtedly the telephone or telegraph. These, however, can only be used when the wires are available in a civilised country, and while they are not in the enemy's sphere of action. Their use must therefore be restricted as a rule to transmission of information in rear of our formed bodies of troops.

The same restriction applies to wireless telegraphy; for the bulk of the apparatus and the length of time involved in setting it up renders it at present unsuited to the needs of patrols. The portable field wire has not yet been given to the Cavalry, nor can more than thirteen miles be carried by the mounted man.

In flat country the flag, and in temperate climates the helio, cannot be relied on with sufficient certainty; the carrier pigeon is practicable only over ground where it has been previously taught and practised, and we are therefore reduced to the messenger mounted on horse or bicycle.

The comparative advantages of bicycle and horse are too well known to need mention; but when considering their use in an enemy's country—a condition we should *always* presuppose—two questions arise at once:—

(a) Can the cyclist be used between the patrol and the supporting squadron, or between the supporting squadron and the main body? To the latter we answer emphatically 'Yes.' The feasibility, however, of employing cyclists as despatch riders between the patrols and the supporting squadron is doubted by some distinguished authorities such as General Bernhardt, though admitted by others such as Colonel Caldwell. We must, I think, depend on the horse for the transmission of reports in front of the squadron till the possibility of using cycles receives further practical proof.

(b) Must relay posts be established between the patrol and the squadron, and the squadron and the main body, and if so at what distance apart?

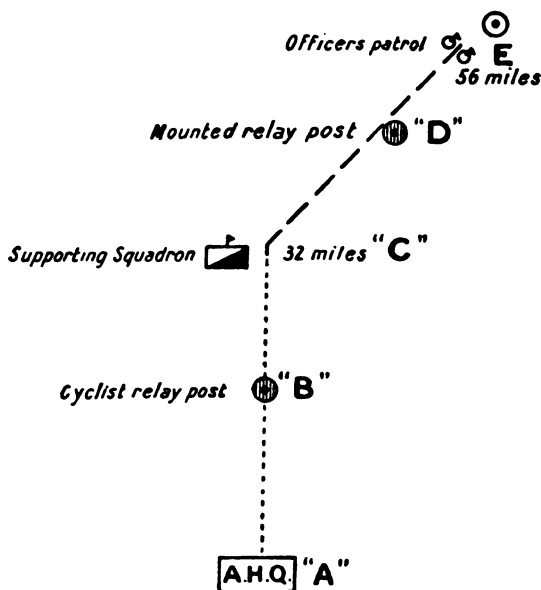
The advantage of relay posts will be great. They spare the extreme fatigue of man and horse, which any one will appreciate

who has had to ride twenty-four hours consecutively, and they enable men to travel faster.

They should be posted off the main road but near well-defined points, so that while the enemy are less likely to stumble on to them, any one of the patrol can find them even by night. The distance apart may well be a two-hour stage, *i.e.* for cyclists—20 miles ; for horsemen—12 miles.

The scheme will work out thus :—

At 10 P.M. one evening the patrol leader is given a definite objective at 'E,' a distance of, say, 60 miles. His squadron leader arranges that the squadron will be at 'C,' a certain point 30 miles off, the following night, and will drop a cyclist relay post of a sergeant and eight cyclists midway at 'B.'



The squadron taking longer to prepare for the march, and moving slower than the patrol, will not get further than 'C,' and will be, say, 24 miles in rear of the patrol.

The patrol, consisting of at least fourteen men and the officer, travels through the night, makes a halt perhaps at 'C,' and then pushes on to 'E,' leaving a mounted relay post of six men at

'D.' Arrived at 'E' he selects a suitable place for the concealment and comfort of the patrol, and taking two men feels his way cautiously on to the point he is required to reconnoitre.

Presuming that he is successful, he leaves the men in observation, returns to the patrol, writes his report and sends it in duplicate by separate roads back to 'D.' The men have all been told, and may have seen, where the points 'C' and 'D' are, and must understand that if they overshoot 'D' they should hand in the report at 'C' or even 'B.'

A message, negative or otherwise, should be sent back at least every eight hours in duplicate, the messengers being replaced at once by two fresh men moving up from the squadron to the nearest relay post, while two others move on from 'D' to the patrol.

A careful record of each message showing the time of arrival and departure, and the name of the incoming and outgoing despatch rider, should be kept in tabular form by each relay post.

One man well concealed should be kept on observation duty, and one man be told off ready to take on the next message.

At the end of 48 hours the squadron should, if necessary, relieve the patrol, for it is the *squadron* which becomes the ideal instrument of reconnaissance.

Should the objective be 90 miles distant, another day's march will be required; the supporting squadron will drop two more relay posts, both it and the officer's patrol moving forward 30 miles, but their relative positions may remain unchanged. In the event of the patrol being checked, the squadron will reduce the distance between them, and a relay post will for the time being become unnecessary.



THE RUSSO-JAPANESE WAR.—I

By COLONEL W. H. BIRKBECK, C.B., C.M.G.

Causes of the war—Organisation of Japanese Army—Japanese statesmanship, perfect combination of strategy and diplomacy—Unpreparedness of the Russians in Manchuria—First Japanese objective, the safety of Korea—Temporary command of the sea obtained—Battle of the Yalu, May 1—Second Japanese objective, Port Arthur—Landing of second army, May 6, at Pitzewo—Landing of the fourth army, May 19, at Takushan—Battle of Nan Shan, May 26—Stackelberg's expedition for the relief of Port Arthur—Movement of the second army northwards to cover siege of Port Arthur by Nogi's third army—Battle of Telissu, June 16—Capture of Motienling by Kuroki, June 27—Battle of Tashihchao, July 26—Junction of second and fourth armies at Haicheng, August 3—Battle of Liaoyang, and junction of first, second, and fourth armies, August 25 to September 4—Battle of the Shaho, October 9 to 14—Capitulation of Port Arthur, January 2, 1905.

IN reading a campaign it is always useful to have first of all a general outline of the operations, to be filled in with details as the study goes on, and it is to assist readers of *THE CAVALRY JOURNAL* who may take up the Russo-Japanese War for examination next year, that I venture to put before them the following skeleton of the operations up to the end of 1904.

We must go back to 1860 and the old China War for the very beginning of the quarrel between Russia and Japan.

Foiled in her attempts to reach the Mediterranean by the Peace of Paris (1856), Russia's craving for a larger seaboard broke out afresh along the line of least resistance to the Pacific, and when China was on her knees and the Allies were in occupation of Peking, Russian diplomacy secured from her the cession of the east coast of Manchuria, from the mouth of the Amur to the Korean border, now called the Maritime Province.

But such a seaboard did not satisfy Russian ambition—it possessed no ice-free port, Vladivostock even being frozen for three months every year, and the Islands of Japan commanded all outlets into the open sea.

The next step therefore was the occupation of the Island of Tsushima in the Channel of Korea, by a Russian warship which only withdrew in face of the strongest diplomatic protests backed by the presence of a British squadron.

In 1875 Japan was compelled to exchange her rights in the southern half of Saghalien for the Kurile Islands, which neither she nor anyone else wanted, and in 1885 Russia entered into negotiations for the lease of Port Lazarev or Gensan, an ice-free port in north-eastern Korea.

England at once occupied Port Hamilton in the Korean Straits, which she evacuated when the Port Lazarev negotiations were abandoned, with an announcement by Russia of her intention 'Never to occupy Korean territory under any circumstances whatever.'

Russia's attitude of aggression had been viewed in Japan with growing dismay; China, the suzerain power of Korea, was evidently unable to maintain her own integrity, still less that of her dependent, and the only solution was for Japan to undertake the task. Her influence accordingly began to make itself felt at the Korean Court of Seoul.

Chinese dignity was wounded, and the quarrel culminated in the Chino-Japanese War of 1894-5.

The operations followed almost exactly the lines of the more recent struggle; command of the sea was gained by the naval victory of Haiyeng off the mouth of the Yalu in September 1904, and in October the 1st Japanese Army crossed the Yalu, and advanced to Haicheng. Meanwhile the 2nd Army landed at Pitzewo, October 24, captured the position of Kinchow, November 6, and took Port Arthur by assault, November 21; effecting a junction near Newchwang, March 6, 1895, both armies fought and won a decisive battle on the Liao, and a

treaty of peace was signed at Shimonoseki, by which China agreed to pay an indemnity, recognise Japanese aspirations in Korea, and cede to Japan the Kwantung Peninsula.

Before this Treaty was ratified, however, a coalition of European Powers—Russia, France, and Germany—representing ‘That the possession of Port Arthur by any Power but China was a standing menace to the peace of the East,’ forced Japan reluctantly to accept an increase of the indemnity and vacate the Kwantung Peninsula.

Three years later—1898—Russia herself leased this same territory from China, making Dalny the terminus of her Eastern railway, and from that moment Japan began deliberately to prepare for the inevitable contest in which her existence as an independent nation was to be the stake.

The year 1900 saw the Boxer Rising and the expulsion of the Russian Railway Guards from Chinese territory, which gave St. Petersburg an excuse for a still more effective occupation of Manchuria, under the pretext of its pacification !

In 1902 a Treaty was made between Japan and England by which the latter practically undertook to keep the ring should Russia and Japan come to blows.

Russia, of course, failed to fulfil her promise to evacuate Manchuria, and her fresh demands on China, coupled with the usual unmistakable signs of her intentions in Korea—*i.e.* the establishment of a branch of the Russo-Chinese Bank in Seoul, and the appearance of Cossacks at Antung to protect the concessionnaires of the Yalu Timber Company—quickly accelerated the crisis.

Finally, in July 1903 Japan presented certain demands at St. Petersburg, which briefly meant that Japan was to dominate Korea, and Russia Manchuria, each agreeing to acknowledge the other's exclusive sphere of influence.

Russia hesitated, and on February 6, 1904, Japan broke off diplomatic relations with St. Petersburg.

Japan was ready, and her naval and military forces were organised and prepared for war, as far as her poverty allowed.

The Field Army included 13 divisions of all arms, *i.e.* 12 divisions of the Line and the Guard Division—organised on exactly the same lines as our present big divisions, with the exception that each had a Cavalry regiment of 8 squadrons instead of 2 squadrons of Yeomanry, and 86 Field guns instead of our 70 cannons of all sorts.

In addition, there were two independent Artillery Brigades of 108 guns each, and two Cavalry Brigades, each of 8 squadrons, without Horse Artillery.

Japan has followed German lines, and the nation in arms falls into several lines :—

1. The Standing Army, called 'Jobi.' Service with the colours 3 years, service with the Reserve $4\frac{1}{2}$ years.

2. The Reserve Army, called 'Kobi.' Composed of men who have completed their 'Standing Army' service. Service 5 years, subsequently raised to 10 years.

3. Conscript Reserve, called 'Hoju.' Service—first term $7\frac{1}{2}$ years, second term $1\frac{1}{2}$ year.

N.B.—The first term includes men liable for service and medically fit, but in excess of the numbers required for the annual recruit contingent of the Standing Army ; they train for 90 days in their first year and 60 during the second and fourth years, and are always liable to fill vacancies in the Standing and Reserve Armies.

The second term includes men similarly liable and fit, who escape the lot of service in the first term ; their service is purely nominal, and they go to the National Army untrained.

4. The National Army, which includes every citizen, whether trained or not, between the ages of 20 and 40.

Thus every man serves. Either he is taken for the Standing Army, in which case he serves 3 years with the Colours, then $4\frac{1}{2}$ years in the Reserve, then 5 years in the 'Kobi' Army, and finally $7\frac{1}{2}$ years in the National Army—or, if in excess of the

numbers required for the annual contingent, he joins the Conscript Reserve of the Standing Army for $7\frac{1}{3}$ or $1\frac{1}{3}$ years, and then goes to the National Army.

The Reserve Army on mobilisation forms separate units.

For example : the divisions were mobilised in February 1904, each regiment sent out its 3 battalions at war strength of fit men made up from the reserves of 1903 and 1902, and its barracks were occupied by a dépôt battalion formed of the temporarily unfit men left behind, the partially trained recruit contingent of October 1903, and those of the men who had left the Colours in 1902 but were not required to fill up the battalions.

This dépôt battalion prepared drafts for the service troops.

As the Standing Army Regiment mobilised and departed for the war, its corresponding Reserve Regiment (2 battalions) was formed in billets in the town, and when it left for the seat of war its dépôt battalion was merged into the Standing Army Dépôt Battalion, which then found drafts for the whole 5 battalions.

The Reserve Army is not organised in complete divisions of all arms, but in what are called 'Mixed Brigades,' the Infantry only being fully represented: thus a division of the Standing Army went to the seat of war with 15,000 fighting men, shortly followed by its 'Kobi Brigade' of 4 regiments of Infantry (equals 8 battalions) with a battery, a squadron, and a company of Engineers, say 7,000 strong.

The Japanese thus went to war with

13 divisions of 20,000 of all arms, and	
non-combatants	equals 260,000
13 'Kobi' Brigades of, say, 7,000	„ 91,000
2 Cavalry Brigades	„ 2,800
2 Artillery Brigades	„ 8,400
	<hr/> 362,200

roundly 860 000 of all arms, with ample machinery to keep them up to strength.

After the battle of Mukden three new Divisions were formed, and with further 'Kobi' organisations and lastly even National Army troops garrisoning the Kwantung Peninsula, brought the total strength of the Japanese forces under arms when peace was declared to over 700,000 men.

There are many lessons to be learnt from Japan, not only in her naval and military organisation and conduct of the war, but in statesmanship too; and not the least striking is the evident influence in their National Councils of Naval and Military Strategy.

The policy which is shaping the destinies of Japan has built upon solid foundations, well and truly laid by craftsmen working in harmony, no matter how divergent their trades; and all developments—commercial, agricultural, and educational, as well as diplomatic, naval, and military—go hand in hand towards the common end, the greatness of Japan, based upon the bedrock of the physical and moral power of her arms.

In the haphazard development by private enterprise of our own great Empire there is no such statesmanship as this; and in the rise to power of modern Germany under Bismarck, von Roon, and Moltke alone do we find a parallel in European history.

On the Russian side was a marked contrast: diplomacy had gone ahead without the strategist, the Army was unprepared, and the fleet scattered.

The troops in Manchuria barely totalled 60,000-rifles, 3,500 sabres, and 164 field guns, of which force one-third only was in the Kwantung Peninsula and Southern Manchuria, the rest at Vladivostock.

On February 4, 1904, Japanese Imperial Headquarters decided upon the despatch of naval squadrons to Port Arthur and Chemulpo, the latter carrying 4 battalions of the 12th Division from Nagasaki at peace strength, as they dare not yet mobilise.

On February 7 the troops commenced landing at Chemulpo,

the telegraphs were cut, Seoul was occupied, and a convention was forced upon the Korean Emperor which permitted the passage of Japanese troops through his territory.

On February 9, the disembarkation completed, an ultimatum was sent to the commanders of the 'Korietz' and 'Variag,' two Russian warships in the harbour, inviting them to come out and fight, or be sunk at their moorings. The Russians steamed out gallantly to meet their fate; in fourteen minutes the 'Variag' was disabled, and both vessels regained the harbour to be blown up by their own crews, who took refuge on board neutral warships.

On February 8 Admiral Togo with the main fleet had attacked the Russian ships outside Port Arthur: the 'Retvizan,' 'Tsarevitch,' and 'Pallada' were struck and damaged by torpedoes, and next day four more of the big ships suffered serious injury.

Meanwhile, on February 6, the Guard, 2nd and 12th Divisions were ordered to mobilise; and on the 17th the 12th Division landed at Chemulpo, occupying Ping Yang on the 21st with an advanced detachment.

Successful beyond all expectations in these preliminary operations, Imperial Headquarters determined to select a landing-place further north, and so avoid, as far as possible, the difficulties of winter marching in Korea, of which the 12th Division was having bitter experience. The inlet of Chinampo was chosen, but it was the middle of March before the ice broke and the Guard and 2nd Divisions were able to land there.

April 21 saw the 1st Army concentrated under Kuroki at Wiju, opposed on the other side of the Yalu by General Zasulich with 2 Divisions and 4 Cossack Regiments under Mishchenko.

On May 1 the battle of the Yalu was fought and won, and following up his victory into the hills of Northern Korea, Kuroki reached Fenghuangcheng on May 6.

The battle of the Yalu cleared the air and relieved the Japanese General Staff of much anxiety. East and West had

met for the first time under equal conditions of armament and organisation, and victory was decisively with the soldiers of Japan.

Kuroki could hold his own ; the security of Korea for the present from Russian aggression, the first objective of the campaign, was assured ; and Japanese Headquarters could turn their attention elsewhere.

Togo's early success had won for Japan the temporary command of the sea, and had enabled her to land troops in Korea unmolested ; these conditions must be made permanent.

In the dockyards of Port Arthur the damaged Russian ships of Admiral Markarov could be repaired, while the serious preparations in Russia itself, of which the Japanese were well aware, showed that the announcement of the intended despatch of the Baltic Fleet to Eastern waters was no mere bluff.

To blockade Port Arthur and at the same time hold off the Baltic Fleet was beyond the power of the Japanese navy ; Markarov must be finally dealt with before Rodjesventsky arrived, and Port Arthur—the Russian naval base—must be taken.

Moreover, apart from its strategical importance, Port Arthur had a moral and political value not to be underrated.

Japan had won the Kwantung Peninsula in fair fight from China in 1894, and had been robbed of it by a coalition of European Powers, only to see it leased by Russia three years later : Japanese pride was deeply involved, and the capture of Port Arthur would be a source not only of enormous elation and satisfaction to the Japanese people, but of vastly enhanced prestige both in Europe and Asia.

From Europe Japan wanted money, while in Asia such a tangible triumph would go far to ensure the correctness of China's attitude of neutrality, then, extraordinary as it seems, none too assured. And thus we see the unique spectacle of the strategist, the politician, and the diplomatist in complete agreement as to a common objective ; to the strategist it meant the

safety of his communications ; to the diplomatist, the advantageous floating of loans in Europe, and a hold over China ; and to the politician, the continued popularity of the war at home.

The victory of the Yalu was therefore the signal for a descent upon the shores of the Liaotung Peninsula.

While Kuroki was deploying on the Yalu, Oku's 2nd Army (1st, 3rd, and 4th Divisions, and 1st Artillery Brigade) had been quietly shipped from Japan, and now lay aboard some 80 transports in the Taitong River, the inlet of Chinampo.

On the whole southern coast of the Liaotung Peninsula between the Yalu and the Bay of Talienwan there is no good landing-place ; with a sheltered anchorage and a good beach the disembarkation of troops presented no difficulty to the Japanese, who never use anything but improvised means for the purpose, and are quite independent of the appliances of a commercial port ; but all this coast is exposed, and the rise and fall of the tide lays bare at low water a full mile of mud flat. However, the nearer to Port Arthur the landing could be effected the better, and the neighbourhood of Pitzewo, in close proximity to Togo's naval base in the Elliott Islands, was again chosen.

Opposition to the disembarkation from the land was not anticipated, but of interference by sea there appeared to be more than a possibility, and in selecting a landing-place within sixty miles of the Russian fleet the Japanese recognised the risk they ran.

Attempts to seal the exit from Port Arthur by sinking ships in the fairway had been made on February 24, on March 27, and finally on the morning of May 3, when Togo was able to report that 'The harbour entrance appears to have been completely blocked to the passage of cruisers and larger vessels.'

Torpedo attack alone had to be feared, and elaborate arrangements were made to guard against it, even to running the transports into shallow water, so that if sunk their upper works would still remain above water.

The first batch of 16 transports left the Taitong on May 3,

but bad weather delayed the landing, which was unopposed, till May 5.

The Russian railway was cut next day at Pulantien, and by May 16 the whole 2nd Army was ashore and held a strip of country across the Peninsula, the 1st and half the 4th Divisions, under Prince Fushimi, facing south towards Chinchow, the remainder of the 4th Division and the 3rd Division facing north from Pitzewo to Pulantien.

On May 20 the 5th Division arrived, shortly followed by the 1st Cavalry Brigade, and these troops then took over the defence of the northern front, while Oku's original army, 1st, 3rd, and 4th Divisions, concentrated for the attack on Nan Shan, 85 miles from Port Arthur.

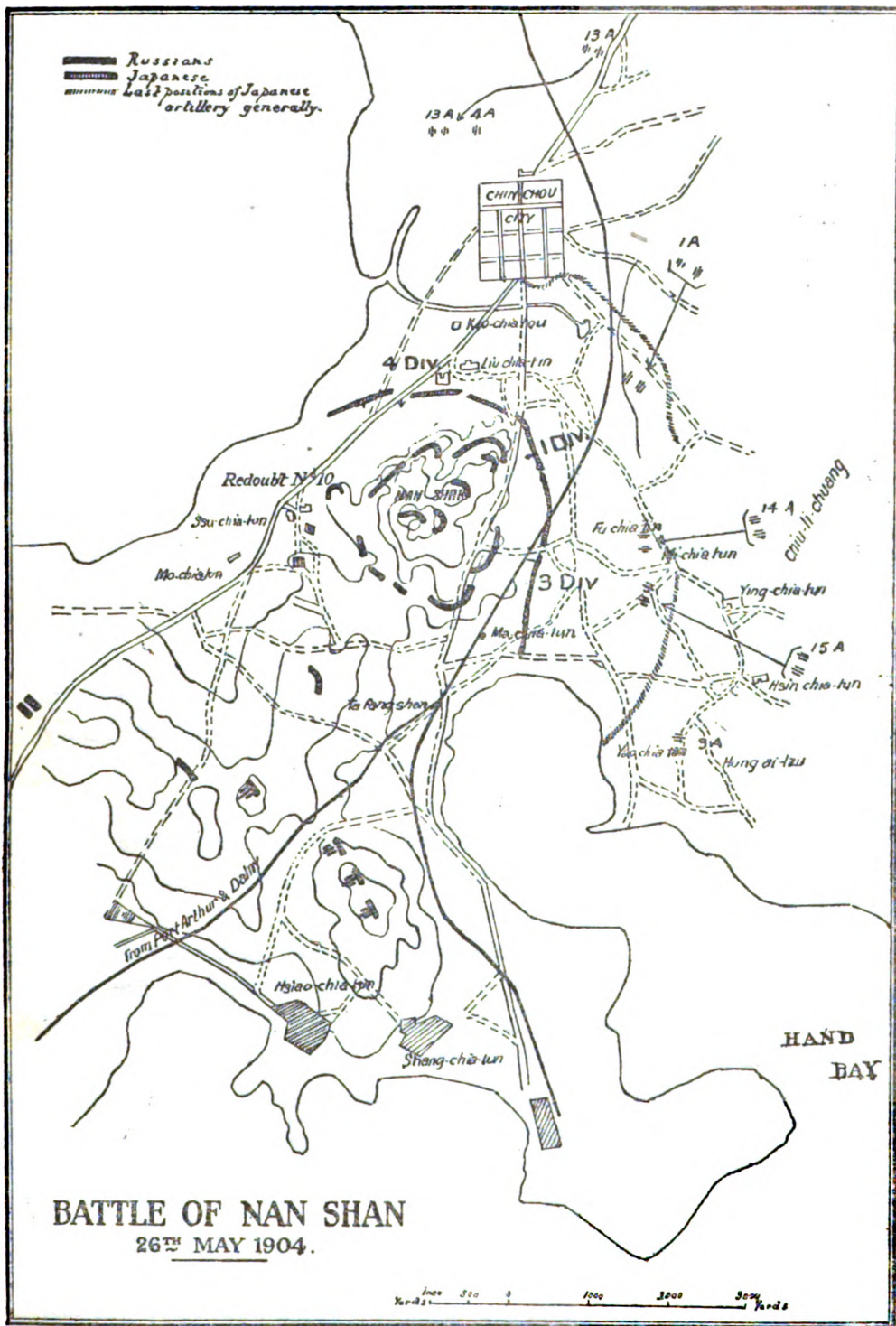
The isthmus of Nan Shan is 4,400 yards across, measured from high-water mark, but low tide exposes some 1,500 yards of mud on either side; stretching across it at the narrowest part from sea to sea is a block of hills, 300 feet high, known as Nan Shan, and here the Russians had prepared their first position for the defence of Port Arthur, held by 15 battalions and 70 guns.

The 2nd Japanese Army was ready for the attack on May 24, but fog, which delayed the promised support of gunboats in Chinchow Bay, and the unexpected resistance of the Chinchow garrison itself, delayed the advance till the morning of the 26th.

Attacking at dawn, with the 4th Division on the right, the 1st Division in the centre, the 3rd Division on the left, and only one regiment in reserve, the Japanese firing-line was by 9 A.M. within decisive range of the trenches on Nanshan, but came to a standstill before the wire entanglements that protected the whole Russian front.

The attack had failed all along the line, but the tenacity of the Japanese Infantry enabled them to cling to the ground they had won, while throughout the day desperate attempts were made to clear a path through the obstacles.

Frequent messages from Divisional Commanders reached Army Headquarters telling of the perilous position of the



first line, but though no reserve remained, and even ammunition for the guns was running short, General Oku's determination never faltered, and at 3.30 P.M. he again ordered a general assault, to be preceded by a heavy bombardment of half an hour's duration.

The attacks of the 1st and 3rd Divisions made no impression, but towards 6.30 P.M. the right of the 4th Division succeeded, by a turning movement, wading breast high through the rising tide, in gaining the ravines below Redoubt No. 10, which they captured; this took the defenders of the advanced trenches in rear, they broke and fled, and by 7.30 P.M. the flag of the Rising Sun flew from the summit of the hard-won hill.

There was no pursuit; without Cavalry, his Infantry exhausted, and his guns without ammunition, all Oku could do was to bivouac in the captured position.

The battle, which had lasted fifteen hours, had been won by nothing but hard ding-dong fighting, and gives a typical example of the ruthless determination of Japanese commanders to carry through their tasks regardless of loss, and the extraordinary tenacity of the Japanese Infantry in clinging to ground they had won.

It was not till May 29 that Dalny was occupied, though the Russians had left it on the 27th to the tender mercies of the Chinese.

On May 31 the 11th Division, which had just landed, came up from Pitzewo, and the 1st and 11th Divisions were then left in position covering Dalny, while Oku with the 3rd and 4th Divisions joined the 5th on the line Pulantien-Pitzewo.

To turn for a moment to the Russian side: it will be remembered that Zasulich, with an advanced detachment of two divisions and a Cossack brigade, had been heavily defeated on the Yalu and was falling back towards Liaoyang.

For this disaster General Kouropatkin was not responsible; his desire throughout had been to concentrate and organise his army at Harbin, to expose no isolated detachments to the risk

of defeat by superior forces, and not to come to grips with the Japanese till he was ready to overwhelm them by weight of numbers, and drive them into the sea.

Alexieff, however, with possibly a more just appreciation of the strategic value of Port Arthur from the naval and political point of view, insisted upon a more forward concentration, Liaoyang became the Russian headquarters, and to that point reinforcements were hurried as fast as could be.

When, already shaken by Zasulich's defeat, Kouropatkin heard from his detachment at Pulantien of Oku's landing, he at once ordered the withdrawal of all troops from the railway line south of Liaoyang, and actually commenced the evacuation of the city.

However, the last train that got through from Port Arthur, May 6, brought Alexieff with it, his influence at St. Petersburg caused the reversal of Kouropatkin's orders, and on May 11 the instructions for the evacuation of Liaoyang were cancelled and preparations began for the relief of Port Arthur by a column under Stackelberg.

Instant, determined, and energetic action could alone have given such an enterprise any chance of success, but the Commander-in-Chief's heart was not in it, and of the 70,000 troops then available at Liaoyang and south of it, only 35,000 were reluctantly allotted to Stackelberg, while the Japanese forces in the Liaotung Peninsula had already reached a total of five divisions, or 75,000 fighting men.

It was to meet this movement that Oku turned northwards after occupying Dalny.

During the operations about Nan Shan, Akiyama's 1st Cavalry Brigade had been cautiously reconnoitring northwards of Pulantien, and on May 30 came in contact, south of Telissu, with Stackelberg's advanced guard under Samsonov, which was repulsed after a brief action most creditable to the dash of the Japanese Cavalry.

For the next few days constant reconnaissance and skirmishing

took place, till on June 5, the arrival of General Nogi to command the 3rd Army before Port Arthur (1st and 11th Divisions, subsequently augmented by the 9th and 7th Divisions), set Oku free for offensive action.

On June 8 the Japanese 10th Division, which with a mixed brigade detached from the 1st Army had landed at Takushan under General Nodzu on May 19 to form a connecting-link between Oku and Kuroki, indirectly protecting the former's rear and the latter's flank, as well as to mystify and mislead the Russians, moved up to Hsiuyen, which it occupied.

On June 13 Oku left his entrenchments at Pulantien, and on the 16th fought and won the battle of Telissu, the 3rd and 5th Divisions attacking in front, while the 4th Division turned the Russian right flank from Fuchou. Following up the victory as far as Hsiungyuencheng, Oku was joined by the 6th Division, which had meanwhile landed at Pitzewo, and there he was forced to remain for three weeks owing to difficulties of supply, which at this time gave the Japanese great anxiety.

On June 26 Nogi, with the 1st and 11th Divisions, advanced a step nearer to Port Arthur by capturing what is known as the Kenshan position, and on June 27 Kuroki captured the Motienling.

The Japanese had thus four armies in the field standing in order from right to left :—

1st Army. Kuroki: Guard, 2nd and 4th Divisions; Motienling.

The embryo 4th Army. Nodzu: 10th Division; Hsiuyen.

2nd Army. Oku: 3rd, 4th, 5th, and 6th Divisions, 1st Cavalry Brigade, and 1st Artillery Brigade; Hsiungyuencheng.

3rd Army. Nogi: 1st and 11th Divisions, and 2nd Artillery Brigade; before Port Arthur.

The latter was joined early in July by the 9th Division, and later by the 7th Division, leaving only the 8th Division and the 2nd Cavalry Brigade in Japan.

Oku advanced and occupied Kaiping on July 9; on July 26 he fought the battle of Tashihchiao, his victory in great measure being due to the presence of Nodzu's force threatening the Russian left flank, and on July 28 the Akiyama Brigade occupied Yingkou.

With the occupation of this port and Tashihchiao all difficulties of supply vanished, for not only was Yingkou a base in itself but Tashihchiao was connected by rail with Peking, and, though neutral, the Chinese were prepared to supply either side with anything they chose to pay for.

On August 3 Oku and Nodzu joined hands at Haicheng, when the 6th Division was incorporated permanently in the 4th Army, and Marshal Oyama took the field.

For three weeks the Japanese armies made no move, and it is opportune to consider the strategical situation of this moment.

In and around Liaoyang, Kouropatkin had concentrated 180,000 men on interior lines opposed to the three Japanese armies converging on that point, which numbered altogether eight divisions of 120,000 fighting men, brought up by 'Kobi' brigades, Cavalry, and guns to some 160,000, or 20,000 less than the Russian total.

Oyama, with the 2nd and 4th Armies, was 25 miles, and Kuroki 15 to 20 miles, from Liaoyang; they were separated by difficult country and their lines of communication diverged.

Given organisation, mobility, and enterprise, the advantages were all on the side of the Russians; there was still for Kouropatkin room to manœuvre, and, holding Kuroki, to fall with superior force on Oyama. Still the Russians made no move, and the Japanese attacked them.

That Oyama was justified by his success and its result in the concentration of his three armies at Liaoyang it is hard to deny, but his victory was not decisive, and indeed he went very near defeat.

Two maxims of strategy, which go hand in hand, indicate—

- (a) The enemy's Field Army as the first objective,
- (b) The concentration of superior force at the decisive point ;

but in attacking the Russian Field Army at Liaoyang the Japanese could not concentrate superior force, because of the detachment of Nogi's army before Port Arthur.

To Oyama's desire to bring Nogi up for the battle of Liaoyang are distinctly attributable the desperate attacks which the latter made on August 7, 8, and 9, on August 13, 14, and 15, and again from August 19 to 24, immediately after which last failure Oyama resumed his advance.

The point is this: Was not the rôle of the Japanese armies under Oyama at this time rather to cover the siege of Port Arthur than to attempt the decisive defeat of the enemy's main army ?

Moltke was of opinion that the best results are obtainable by combining the strategical offensive with the tactical defensive—*i.e.* putting yourself in such a position that your enemy *must* attack you on your own ground, and with every advantage on your side.

The great strategist acknowledged that he himself never succeeded in applying the principle, which is evidently extraordinarily difficult of execution—but here it seems that Oyama might have done well to await the attack rather than force the fighting as he did.

However, he thought otherwise, and on August 25 the concentric advance on Liaoyang was resumed.

By the 27th the three armies were in touch along the front of the Russian main position covering Liaoyang, and from August 29 to September 4 the fighting was continuous ; the result being the withdrawal of the Russians to a position along the Shaho unpursued, but with heavy loss in men, material, and moral, and the concentration of the three Japanese armies at Liaoyang with a loss of 25,000 men.

Oyama now took up a position covering Liaoyang, in a semi-circle—right, at Penjiu; centre, at Yentai; and left thrown back again to the Taitse.

His Cavalry, the Akiyama Brigade, strengthened by two squadrons from each of the 3rd, 6th, 9th, and 11th Divisions, had kept their position in front of the left flank all through the operations about Liaoyang, and were now pushed forward with a battalion of Infantry in support to Heikoutai, in advance of the left flank.

The 2nd Cavalry Brigade, which had now landed and was on the line of communications covering Newchwang during the battle of Liaoyang, came up on the right flank and was attached to the 1st Army.

Having concentrated his armies there was no need for any more tactical offensive on Oyama's side, and he sat down to await the attack, which soon came.

Pressure from Europe forced Kouropatkin to make another effort for the relief of Port Arthur, and on October 9 the battle of the Shaho began with an attack on the Japanese right flank near Penjiu.

The Russian offensive was badly combined and badly supported, and, swinging forward his left, Oyama countered all along the line and drove his enemy back on the Shaho, after five days' hard fighting, with a loss of 50,000 men.

The capitulation of Port Arthur was signed on January 2, 1905, and Nogi's army was set free to give Oyama the superiority of force he lacked at Liaoyang.

WHEELED AMBULANCE FOR MOUNTED TROOPS

By COLONEL H. G. HATHAWAY, A.M.S.

Form of wagon required for Cavalry wounded—description of a two-wheeled tonga designed by Colonel H. G. Hathaway.

A LIGHT wheeled ambulance is by far the most important part of any system for disposing of the wounded of Cavalry.

All sorts of vehicles have been recommended.

A wagon was made for me by the Indian Government at the gun and carriage factory at Fategarh (described in the 'R.A.M.C. Journal,' July 1905). I tried it for some time and found it very useful, but it struck me that sitting accommodation is hardly required at all for the wounded of Cavalry, who, if they ought not to be lying down, can generally sit up on their horses; and by abolishing this form of accommodation the weight of the vehicle could be much reduced.

Many surgeons in South Africa, including myself, saw most useful work done by the Indian tongas, so I adapted the tonga to the superstructure of my wagon, and in the new model removed two great faults noticed in South Africa—namely, that the body of the vehicle was too close to the ground, and that the number of recumbent cases which it was possible to carry in one vehicle was too small.

There was also another trouble—'sore bellies' and 'sore backs' of ponies—but this was caused by difficulty of balance, the Indian tonga having been originally constructed for sitting accommodation.

The Indian tonga is built to carry four persons sitting, but was altered for South Africa to carry two recumbent cases. My

tonga carries four men lying down. There is no sitting accommodation, but surely the lying down accommodation is generally far more useful, and it does no harm for men who could sit up to lie down for a time.

The result of trials with the wagon of the same superstructure was that when I and three other medical officers lay down in both vehicles, and were drawn quickly over rough ground, we all found that transit in the tonga was unquestionably more comfortable.

The reason was that a strong spring attaching the currie harness to the pole at one end, with the springs on the axle at the other end, was far less 'dead' than the springs on two axles only, as in the four-wheeled wagon. Up to this careful trial I have always been in favour of four-wheeled vehicles for carrying wounded, but now I have changed my opinion completely.

Another advantage of a two-wheeled vehicle is that obstacles are more easily avoided by two wheels than by four, or, if negotiated, there is only one bump to the patient, instead of two as in a four-wheeled vehicle.

There is the disadvantage, on the other hand, that both animals might fall in a two-wheeled vehicle ; but the drop of the pole would not be much, because the currie saddle and the animal would keep it from the ground, and the occupants therefore of the stretchers in the tonga would not be seriously inconvenienced.

There are third-class wheels and arms, interchangeable of course with third-class wheels of other transport.

India-rubber tyres could be used until they wore out. The superstructure is composed of angle and T iron ; the stretchers are run in by two men. One man goes round to the front of the tonga and the cross-bars are opened, stretcher raised, and one handle placed on rest at each end. This sets free one of each of the bearers' hands, which is used to turn the cross-bar back and lock it, there being a bolt which drops and prevents the cross-bar jumping out of its socket, and there is a strong hinge on the

other side of the cross-bar. Four recumbent cases are carried comfortably in this vehicle. They are near together, it is true, but there is room for men to turn on their sides on each stretcher, and plenty of air is obtainable from the sides. Moreover, patients would not, as a rule, remain long in these tongas, which are only used as a rapid means of conveyance from the front.

The men's rifles are carried in racks above the stretcher, and their kits go in the lockers underneath the wagon; there are four of these lockers, and the medical and surgical equipment is also carried in them, together with two tent side walls, which can be laced on to the side curtains of the cart, so as to form tentage for twelve when required for bivouac.

One of the photographs shows one side with tent side walls pitched. When in use there would be two men on stretchers inside, while the other two stretcher cases would be taken out of the tonga and placed with their stretchers underneath the cart, so as to allow them more air space.

Four more men could lie down under the canvas on each side, making a total of twelve men comfortably housed by a single ambulance wagon; I need hardly mention what an advantage such an arrangement would be with mounted troops out on column. Moreover, if one of these vehicles when fully loaded could not reach a stationary hospital on its journey towards the second line of medical aid, its entire complement—patients, bearers, and drivers—could be housed for the night.

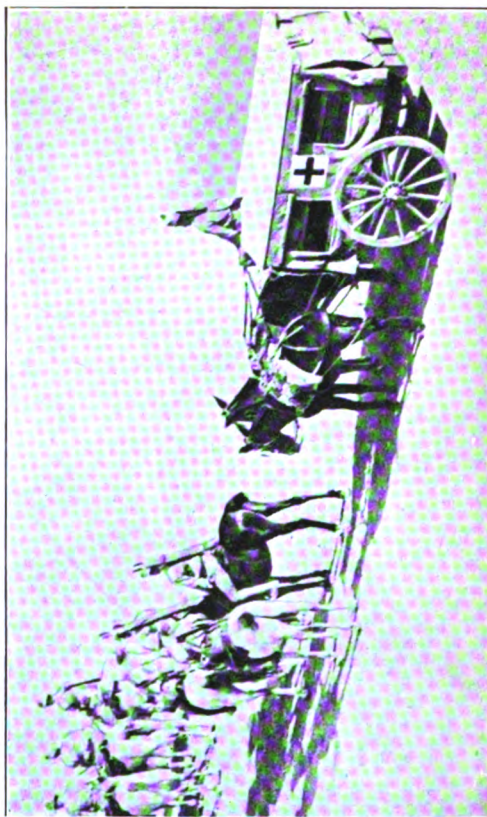
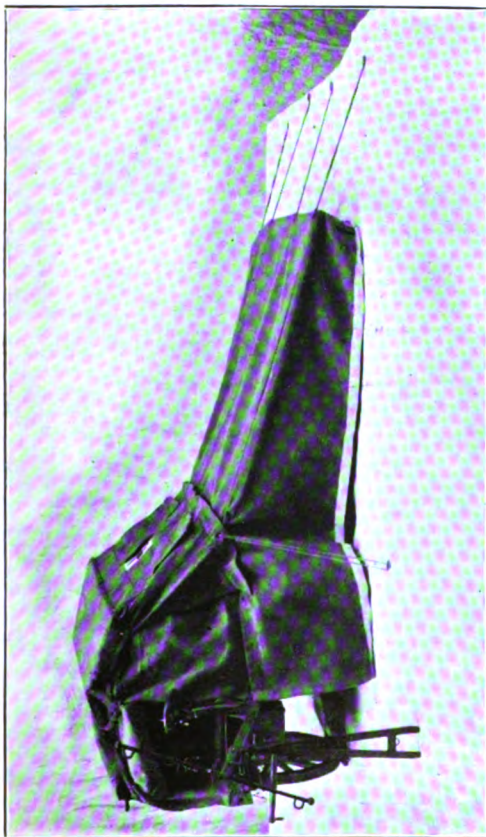
The plan of attaching tentage to general service wagons for covering troops at night would cause a great saving of time and labour. In formation of camp the wagons would halt at sufficient intervals to allow of their canvas being let down and pegged to the ground.

This canvas could be attached to the raves of the wagons on each side, whilst a separate covering would be provided for the stores in the wagon, so that they could be got at at any time without disturbing the tentage.

The length of a general service wagon is 11 ft. 4 in., and the canvas sides would be made wide enough to cover a man

WHEELED AMBULANCE
FOR
MOUNTED TROOPS.

COLONEL H. G. HATHAWAY, A.M.S.



lying at right angles to the wagon. Five men could be covered on each side of the wagon ; the raves are five feet from the ground, so there would be plenty of air space. The width of a wagon is 3 ft. 9 in., and length 11 ft. 4 in., so two more men could sleep underneath, twelve being thus accommodated by each general service wagon without in any way interfering with the contents carried.

This tonga was exhibited at the last International Exhibition of Red Cross Appliances, and gained the Empress Marie's prize for the quickest and least painful method of discovering and lifting persons wounded whether in land or sea fights.

One of the photographs shows the tonga itself out on a field day at Poona with Mounted Infantry. Two mules took it along easily when empty. The weight is 10 cwt. unloaded, and $11\frac{1}{2}$ cwt. loaded with stretchers, tent, and medical equipment. The horses of the three mounted bearers which accompany it would be fitted with breast harness, so that two of them could assist to draw the tonga when loaded with four patients, or when circumstances require it.

A good draught horse should draw a weight of about 1,500 lb. about 25 miles per day ; walk about 3 miles per hour, and trot at the average rate of 6 miles. My tonga, loaded with the equipment and rifles of four patients, and the driver, would weigh under 2,284 lb., so that it would, for all ordinary work, be well within the scope of a pair of horses each capable of pulling 1,500 lb.

The measurements of the tonga are as follows : Extreme length from end of pole to back of tonga 13 ft.—so that the vehicle would take up little room in a column is a great consideration. The length of the body is $7\frac{1}{2}$ ft., height 7 ft., width of body 5 ft. Width, including wheels, 7 ft. Height of body from ground, 2 ft. Height of lower stretcher platform from the ground, 3 ft ; this is the height the stretchers would have to be raised by bearers from the ground to place in the tonga. Size of lockers, 3 ft. long, 2 ft wide, and 1 ft. high. Wheels, 4 ft. in diameter.

SOME SUGGESTIONS ON THE PHYSICAL TRAINING OF A CAVALRY RECRUIT

BY LIEUT.-COLONEL B. R. DIETZ, *7th Dragoon Guards.*

Physical training for recruits on a wooden horse—Movable wooden horses on which recruits can be taught mounted combat—Method of training recruits—Self-adjusting dummies for use in training men to use the lance and sword at full gallop.

Now that the Cavalry manoeuvres are over for the year, and we are approaching the time for beginning troop and squadron training, a few suggestions on the physical training and the teaching of elementary swordsmanship may not be out of place. Under the present regulations a Cavalry recruit should not go to stables nor begin his riding drills till he has put in about three months' physical training. There is not the least doubt that this is most beneficial in the majority of cases where the physical development of the recruit is poor; but we so frequently have recruits who have done a certain amount of riding before they enlisted, and who are well developed, that the question presents itself, Could we not get these men a little sooner to stables and start them in their riding? If we compare the physical training course of the Cavalry and Infantry recruit, we find that the two courses differ very little, though the Cavalry recruit's course is of shorter duration. In the case of a recruit who has never ridden before he enlisted, we generally find that the gripping power of his thighs wants developing, and in the physical course laid down there is no exercise which will develop the adductor or gripping muscles. In the gymnasium the Cavalry recruit is taught most of the bending

exercises on foot, with legs astride, that is to say, forward bending, back bending, and bending to either side. I am inclined to think that these bending exercises would be far more beneficial if the recruit were taught to perform them sitting in a saddle. After obtaining the necessary permission to carry out my idea as a trial, I had a wooden horse made by my saddle-tree maker and obtained two old cast saddles and had them screwed on to the wooden horse. The sides of the wooden horse which pass under the flaps of the saddle were partially cut through in the form of narrow slits. This I found caused the sides of the horse to have a certain amount of give when a man was in the saddle and gripped with his thighs. The wooden horse for training men to ride is by no means a new idea and is much used in conjunction with physical training at the Military College at West Point in the training of cadets. It was with a view to finding some exercise which would slowly develop the recruit's gripping muscles that I had the wooden horse made which I have just described.

I have often noticed that recruits when they are first taught jumping in the riding school seem to lose all power of grip as they sit back whilst going over a jump. I think that teaching the forward and backward bending exercises while the recruit was sitting in the saddle, and making him grip, has a great advantage over the method of teaching the bending lessons on foot. The recruit soon acquires that co-ordination of muscular action which enables him to lean back and grip at the same time. It will be seen from the illustration that the construction of a wooden horse of this sort is extremely simple. Such a horse could easily be constructed to take six saddles, so that six men could be instructed together. In the early stages of physical training the recruit can be taught to rise in the saddle with stirrups, at the same time gripping; later on he can be taught to rise without stirrups, but this naturally is a much harder exercise. The instructor can see in a moment if the recruit is gripping by just keeping his eye on the side bars of the horse

to see if they bend. Turning to the right and to the left and gripping at the same time are splendid exercises, and the muscles employed in these exercises are the very ones which conduce to quickness of movement, so necessary in mounted swordsmanship later on.

One of the illustrations shows the forward bend in the saddle. One man has stirrups, the other has not. I have found a wooden horse with a cast saddle fixed on it, which can be adjusted from fourteen to seventeen hands, most useful for teaching the recruit how to mount from either side without stirrups and the different ways of standing to his horse and the way to hold his reins. I noticed that a wooden horse of this description was in use at the Cavalry School. A short daily lesson in this subsequently saves much time and trouble in the riding school. The officers of nearly every Cavalry regiment use nowadays a wooden polo horse for practice. The advantage of such a horse is unquestionable. Why should we not follow the same idea for the instruction of our recruits? Wooden horses can easily be made regimentally, and cost at the most a few sovereigns.

For those of my readers who may not have closely studied the physical training of a Cavalry recruit I should like to point out that the progressive tendency of physical training of late years has been to eliminate apparatus as far as possible. I do not look upon a wooden horse, when it is used simply to take the place of the live animal, as apparatus in the gymnastic sense. Gymnastic apparatus to my mind comprises such things as horizontal and parallel bars, rings, trapeze, bar bells, &c. The fact that simple exercises which conduce to bodily activity are more important than brute strength has been thoroughly recognised.

In the case of Territorial mounted corps, where it is sometimes difficult to procure troop horses, and where men can only attend drills in the evenings, I believe that wooden horses, such as I have described, might prove of the greatest value.

There are rumours that it has been decided that the new pattern Cavalry sword is to be issued. This has been ably described in a former number of THE CAVALRY JOURNAL by that veteran swordsman, Major R. M. Poore, D.S.O. Much has been said and written about the superiority of the thrusting sword over the cutting sword, and *vice versa*; but now that it may be a fact that we are to have a pointing sword, I venture to offer a few suggestions for teaching the recruit the use of it in a way that cannot fail to interest him. I am inclined to think that one does not get the best value out of instruction on foot when the recruit has eventually to use his weapon mounted. I suggest that the first week's instruction should certainly be given on foot, but in the mounted position. The teaching of advancing and lunging, to my mind, is of doubtful advantage to a Cavalry recruit. Unless he becomes an expert swordsman, or perhaps an instructor, he never will be required to lunge again on foot except at drill. A great difficulty in teaching a Cavalry recruit mounted swordsmanship is that you cannot bring home to him until he has ridden some considerable time, the idea of pace, direction, and the necessity of being able to lunge or make a back cut quickly in any direction, where perhaps a thrust would be impossible.

In the fencing room at the Cavalry School there is a kind of hobby horse consisting of a saddle fixed on an iron frame. This form of hobby horse works on a pivot underneath, so that it can be instantly turned in any direction by the rider. It is a capital idea and very practical, but it has the drawback of being immovable, and the adversary or instructor must work on foot.

I have often thought that something in the shape of a hobby horse could be devised which could be moved about quickly in any direction. About two years ago I happened to see in London the very thing I had been trying to work out, namely, a Slingsby truck. These trucks consist of a plain wooden frame resting on six wheels; each wheel works independently, and never more than four wheels out of the six are on the ground at

the same time. The wheels have felt tires to prevent noise, and are used largely in warehouses for moving goods.

I tried with one truck first and got my saddle-tree maker to make me four uprights which can be adjusted to any height by means of pins. An old cast saddle surmounts the framework and is screwed on to it. In front of the saddle is a roughly shaped horse's head, and a pole which can be fixed under the cantle of the saddle completes the outfit. The construction will be quite clear from the illustrations. The truck appeared to answer so well that I had a second one fitted up, and I soon found that quite good value could be obtained if the instruction were intelligently given. In the early stages recruits can be placed at any angle and at any distance apart at the halt ; later on they can be taught on the move, gradually quickening the pace. The recruit gets into the way of gripping his saddle simply from fear of falling off when he is turned round on the horse. He gradually develops his gripping or adductor muscles and gets by degrees an idea of balancing the body in the saddle.

The illustrations show how instruction can be given in sword *versus* sword, and sword *versus* lance. It is curious how instruction and competitions in sword *versus* bayonet seem to have dropped out of late years and yet how necessary. The inability to take off a bayonet thrust quickly and neatly on the move may perhaps cost a man his life some day when it comes to the pinch.

It is surprising how easily these horses when mounted can be moved by the pole ; a touch will send them spinning round to either hand, and the truck can be completely turned round on its own ground. Whoever pushes the horses should wear masks for fear of accidents.

I found that recruits soon began to look upon this form of instruction more in the light of a game, and the horses were constantly in use in the voluntary evening hours in the gymnasium. I also found that some of the best swordsmen in my regiment soon took to using them for working up for competi-



Forward bending and gripping with the thighs
in one exercise.

THE PHYSICAL TRAINING OF A CAVALRY RECRUIT.



The beginning of a Lance Thrust. Dummy
bending to it. Note how Lance bends.



Recovering the Sword after a good thrust
up to the hilt on the near side.

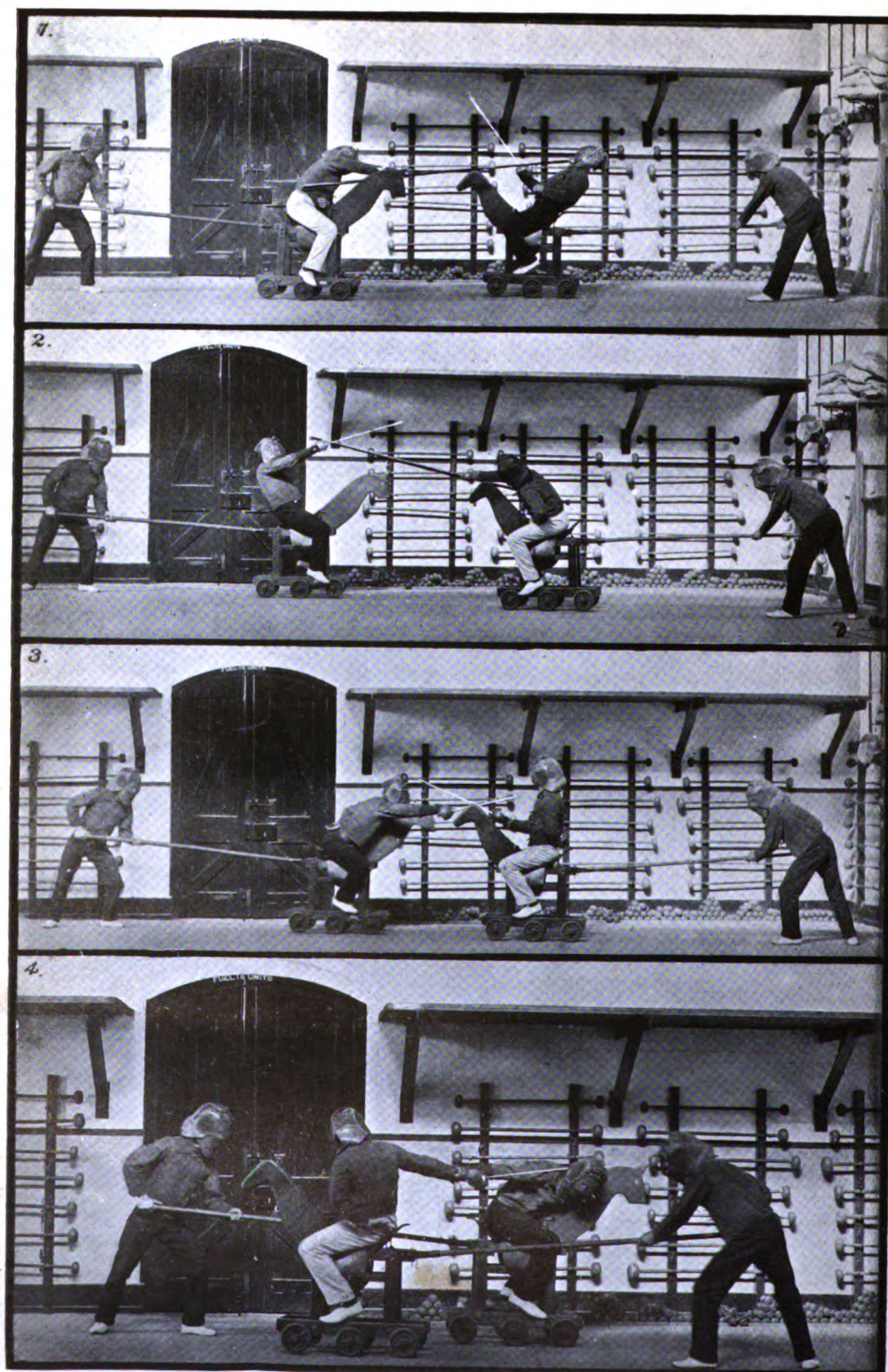


Recovering the Sword after a good thrust up to the
hilt, showing how the dummy bends to it.



In the act of recovering the Lance.

THE PHYSICAL TRAINING OF A CAVALRY RECRUIT.



1. A good Lance Thrust.
2. Taking off a Lance Thrust.

3. A good Sword Thrust.
4. A good Return Cut.

tions at the district and Royal Naval and Military Tournament. The horses are well adapted for practising any form of attack or defence with sword or lance. Attacks, parries, and returns can be worked out and practised, at first slowly, gradually increasing to considerable speed, while the disadvantage of making our troop horses 'fed up,' and perhaps spoiled for combat, is got over satisfactorily. I do not suggest that these hobby horses should be included as apparatus for physical training, but I have found them useful in the voluntary hours. I firmly believe that anything that draws a lad to the gymnasium of his own free will cannot but do good.

I offer these suggestions for practice in the elementary stages, but now for the further instruction at full gallop.

Several years ago it occurred to me that something better than hanging dummies, rings, balls of straw, or stuffed balls covered with leather on tripod stands might be devised. The number of fatigue men wanted to replace dummies, heads, rings, &c., when a squadron is at sword practice is, to my mind, a sad waste of time.

In mounted swordsmanship the chief point to bring home to a cavalryman is that when thrusting at full gallop the impact in the real thing is terrific. I doubt if thrusting at rings or hanging dummies will bring this fact home satisfactorily to our men. Another point is that in thrusting there is a considerable wrench, or I may say 'suck back,' in withdrawing the weapon, especially in the case of the lance.

To give the necessary resistance and overcome the difficulties already mentioned I worked out a very simple contrivance in the shape of a self-adjusting dummy. I will not trouble my readers with a full description of it, but it will suffice if I say the dummy is built up on to a metal framework which revolves in a tubular holder below which is a powerful spiral spring. The holder fits into a metal socket sunk into the ground. The illustrations, which were taken at high speed, will speak for themselves.

At first I found that men invariably had their lances wrenched from their grasp and left them sticking in the dummy. This is what has happened many times in war, and what we want to teach our men to guard against. The knack of turning in the saddle and allowing the impetus of the horse to withdraw the weapon after a good thrust is soon acquired, but I do not believe it can be satisfactorily taught by thrusting with a practice sword which bends on impact, or thrusting at objects which do not offer resistance. With permission I have used these dummies for two years in my regiment for the instruction of recruits and trained men and am convinced of their usefulness. It makes the instruction interesting and realistic to the men, which is half the battle. Horses get accustomed to going close up to life-like figures, and I have noticed that knowing old troop horses will go up to tripod stands or gallows when they shy off a life-like dummy.

A very common fault with our men is that they ride too wide of their adversaries. The important thing to teach them is to ride their adversaries down with determination and use their weapons at high speed. Circling and turning is no doubt useful, and horses must be trained to be handy and obey the leg; but what about the charge when a squadron goes bang in, or in a pursuit perhaps lasting for miles?

There is so much to teach our men nowadays that it is impossible to devote very much time to swordsmanship; but nevertheless I think a squadron which has been well trained in a practical way in swordsmanship or in the use of the lance at high speed will come out top in the end when it comes to a charge. Superiority in man-to-man combat may just turn the balance in our favour.

To close a somewhat lengthy article, I trust that none of the foregoing suggestions which I have ventured to offer will be construed as innovations contrary to the spirit of the regulations laid down in the text-book of Cavalry Training.

My experience convinces me that it is impossible to train a

THE PHYSICAL TRAINING OF A RECRUIT 529

recruit to ride nicely and use his weapons with any degree of skill in less than at least 100 to 120 lessons. In cases where the continuity of instruction has been broken by hospital, musketry, &c., it takes considerably longer.

Yet I maintain that if the wooden horse is used in the early stages of physical training, it is quite possible in fifteen lessons to teach the recruit to sit his horse barebacked over a jump, with arms folded or above his head. The more we teach our men to ride in the early stages without hanging on by the reins, the fewer will be the bit injuries in the ranks later on.

IMPORTANT

The Staff of the Journal is very limited, and it is therefore necessary for all officers who obtain the Journal direct from the Managing Editor to report any alteration of rank or address immediately, as it is quite impossible to follow up the stations of individual officers: every effort will, however, be made to trace the moves of regiments.

SPECIAL RESERVE OF OFFICERS

BY MAJOR F. R. LAWRENCE, D.S.O., 14th (King's) *Hussars*,
General Staff

WITH this year's June Army Orders an important pamphlet was issued giving the instructions relating to First Appointment, Training, etc., of the Special Reserve of Officers. These instructions have since been amplified by means of circular letters, and have been modified in the September Army Orders.

This Special Reserve of Officers is a branch of the Reserve of Officers, and is designed to meet two requirements:—

- (i) To provide officers for Special Reserve units.
- (ii) To provide supplementary officers for regular units,
in order to keep them up to strength in time of war.

In those arms of the service which include Special Reserve units, such as Royal Field Artillery and Infantry of the Line, it is natural that the officering of those units should be the first consideration. But in the case of Cavalry, where regiments have no Special Reserve units behind them, the provision of supplementary officers can be started at once.

The importance of such a reserve needs no demonstration. Casualties are bound to occur in war; and the value of having behind the regular establishment a number of special reserve officers, between 19 and 35 years of age, each of whom has been trained in the regiment, and is personally acquainted with officers and non-commissioned officers, cannot be over-estimated. The existence and efficiency of this reserve depends on the officers of Cavalry regiments, and the task of its formation and training should commend itself to every officer who has the interest of his regiment at heart.

It does not appear likely, moreover, that efforts to get suitable special reserve officers should be unsuccessful; for, from

the point of view of those officers, the prospect is one which should attract all men who, while unable to adopt soldiering as a career, wish to serve their country in time of war. This will be seen from the conditions of service detailed in the pamphlet referred to, which deals with first appointments, probationary and annual training, qualifications for promotion, pay and allowances.

The provisions may be summarised as follows :—

The liability which officers of the Special Reserve of Officers incur is the performance of the training required of them, and liability for active service, at home or abroad, in any national emergency which necessitates the calling out of the Army Reserve. This liability is for the period of one year, but unless the officer resigns his commission it goes on from year to year. In respect of this liability, an officer gets £20 annually; and if called out for active service, he receives £50 as compensation for disturbance, and to buy additional kit.

A candidate for the Special Reserve of Officers, Cavalry, must be between the ages of 18 and 25 years, and on application to the commanding officer of the regiment in which he wishes to serve will be provided with a form to fill in giving details as to where educated, character, etc. Medical and birth certificates are also required.

On being recommended by the commanding officer, and approved by the general officer commanding-in-chief, a candidate receives a commission in the Special Reserve of Officers on probation, and then joins the regiment to which he has been appointed, or the affiliated regiment,¹ in the case of a regiment serving abroad, for a period of probationary training.

At the time of joining he receives an outfit allowance of £40,

¹ Regiments are affiliated as follows :—1st Dragoon Guards with 5th Dragoon Guards; 2nd Dragoon Guards with 6th Dragoons; 3rd Dragoon Guards with 6th Dragoon Guards; 4th Dragoon Guards with 7th Dragoon Guards; 1st Dragoons with 2nd Dragoons; 5th Lancers with 12th Lancers; 9th Lancers with 21st Lancers; 16th Lancers with 17th Lancers; 3rd Hussars with 7th Hussars; 4th Hussars with 8th Hussars; 10th Hussars with 18th Hussars; 11th Hussars with 13th Hussars; 14th Hussars with 20th Hussars; 15th Hussars with 19th Hussars.

to provide himself with service dress and greatcoat, mess dress, sword, etc. Full dress is optional, and the grant is not intended to cover this.

The normal duration of the probationary training is twelve months, but for officers who have served in the officers' training corps, *i.e.*, a public school or university corps, and obtained Certificate A, it may be reduced to eight months, and for those who have obtained Certificate B, to four months.

In the latter eventuality the probationary period of only four months must be performed between March 1 and October 31. As the system of examinations for Certificates A and B will not be operative till May 1909, the amount of probationary training required from officers who join before then has been modified. Thus candidates who are granted probationary commissions before December 16, 1908, will only have to do four months' training, and those who are granted probationary commissions between December 16, 1908, and May 15, 1909, will only have to do eight months', which is further reduced by four months if they are in possession of Certificate A from the officers' training corps. Furthermore, the proviso as to the time of year when the training must be done will not apply during the transition period.

During the normal probationary period of one year an officer has to undergo examinations equivalent to Certificates A and B from the officers' training corps, and at the end of the probationary period he must obtain from the commanding officer his final certificate of proficiency.

It is probable that the examinations will be held regimentally, their object being to satisfy the commanding officer as to the progress which the officer is making ; for it is on the commanding officer's final certificate that the officer is fit to perform the duties of his rank in the field and in barracks that the confirmation of the probationary commission depends.

During the probationary period the officer's pay amounts to 11s. 8d. per day, and in addition free quarters and the use of two chargers, foraged free of expense.

Once an officer has been confirmed in his commission he belongs to the regiment as a supplementary officer, and his name will appear in the Army List with the names of the other officers of the regiment. Some period of annual training will be required of him, which he will perform, if possible, with the regiment; the amount at present laid down is fourteen days, *plus* six days' musketry; the latter need not be continuous.

Promotion up to the rank of captain will be by time, provided the officer is qualified. Thus a second lieutenant will be promoted to lieutenant after five years' service, and lieutenant to captain after ten years' service. Lieutenants and captains before promotion to the rank of captain and major will be required to pass in subject (c) as for lieutenants and captains of the Regular Army. Lieutenants before promotion will attend a course at a school of musketry.

During the annual training or authorised course of instruction, officers receive the pay of their rank, *plus* 4s. mess allowance, and lodging allowance if not accommodated free in barracks. At the age of 35 the special reserve officer ceases to draw the £20 a year 'retaining fee'; but he may continue to keep his liability for active service, if he so desires.

Such are the conditions of service. Surely there must be many young men now finishing their education to whom a period of training as a Cavalry officer would be attractive, and who afterwards will be proud of the feeling that they are qualified as reserve officers of a Cavalry regiment, with whom they will go on service should an emergency arise.

The important point of these instructions is that commanding officers can at once commence to obtain a reserve of officers, and that, as stated above, those who are granted probationary commissions before December 16 this year will only have to do four months' probationary training, and those who are granted them before May 15 next year will only have to do eight months', which can be reduced to four months if in possession of Certificate A.

***NOTES ON IMPROVISED METHODS OF
CROSSING RIVERS BY CAVALRY***

BY THE OFFICERS, 3RD FIELD TROOP, R.E.

Methods of swimming horses—Methods of taking transport, &c., across on different forms of rafts.

IN all cases where Cavalry have to cross rivers which are unfordable it is essential that the horses should swim, unless time and material are available for bridging. It is a matter of great difficulty to improvise, except in very favourable circumstances when a large raft can be made, anything on which horses can be ferried across.

METHODS OF SWIMMING HORSES

The horses can be made to swim over in several ways :—

- (a) The men can swim and guide their horses over.
- (b) A few horses can be led by men in boats or rafts, the rest being driven after them and made to follow.
- (c) They can be led by men walking on a foot-bridge.
- (d) They can cross on an endless rope.

As regards (a) and (b) nothing further need be said.

Light foot-bridges (c), suitable for small parties moving without wheeled transport, can be made in various ways, two suggestions for which are described below—(i) using barrels, (ii) using ladders :—

- (i) With a limited number of barrels a very stable foot-bridge can be made on the catamaran principle. A

footway of single planks is supported by barrels at 10-foot intervals, kept apart by light spars. The whole is prevented from capsizing by arms, B (fig. 1), supporting timbers, A, which float on the surface.

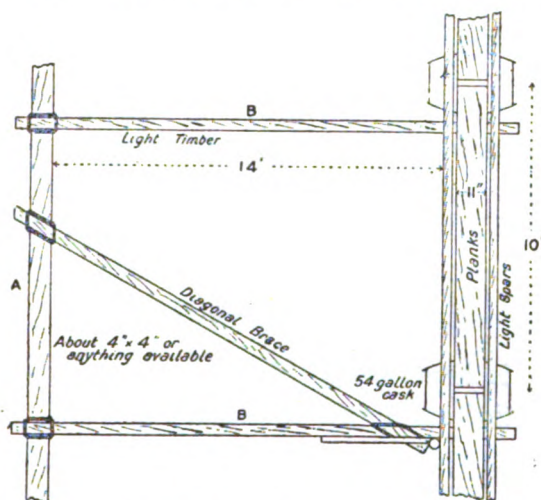


FIG. 1.—PLAN. LIGHT FOOTBRIDGE OF CASKS AND SPARS. LASHINGS OMITTED.

With 54-gallon casks every 10 feet, men can follow at two paces' interval.

- (ii) Ladders, when trussed, are suitable for bridging gaps of 40 or 50 feet. A strut, consisting of a plank

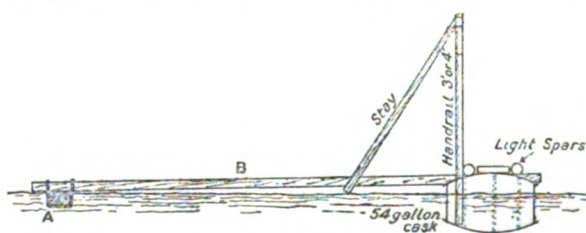


FIG. 2.—ELEVATION.

as wide as the ladder, is supported by telegraph wire fixed to the ends of the ladder, as shown in figs. 3 and 4. For long ladders two struts will give added strength. The wire should be fixed to the sides of the ladder, and not to the rungs.

(d) Horses swimming and guided by an endless rope. One method is as follows: A pair of holdfasts are driven in each

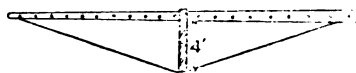


FIG. 3.—TRUSSED LADDERS. ONE STRUT.



END ELEVATION.

side of the river, to which blocks to take a $2\frac{1}{2}$ -inch rope are lashed. The rope is made continuous by splicing the ends, and

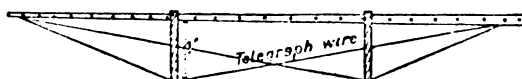


FIG. 4.—TRUSSED LADDERS. TWO STRUTS.

when working is kept moving by men pulling at A A (fig. 5). The horses are tied on by their headropes, with a running clove-hitch. Plenty of men must be available on the landing side to lead the horses away and untie the hitch. A block and tackle is

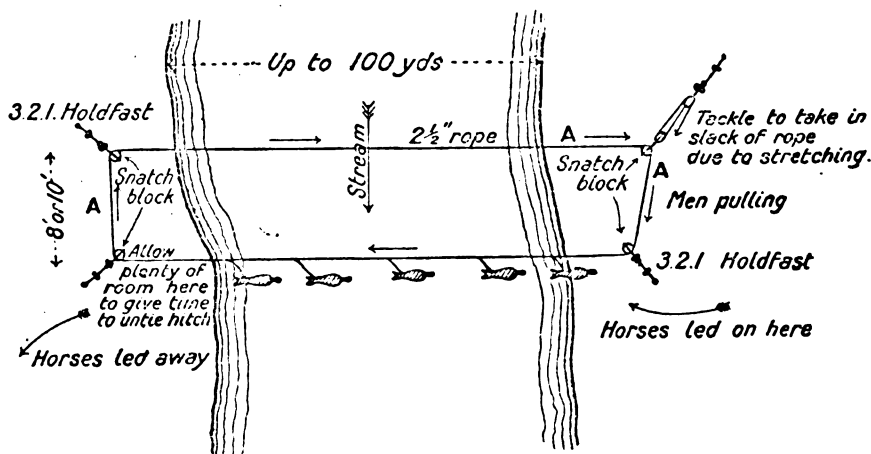


FIG. 5.—SWIMMING HORSES WITH AN ENDLESS ROPE.

introduced at one holdfast, so that the slack of the rope can be taken in, as it stretches considerably.

This method is suitable for a river up to 100 yards wide. Time taken to cross, one regiment per hour.

METHODS OF TAKING TRANSPORT, &C., ACROSS RIVERS

Arrangements will, of course, have to be made for taking across the river all transport, as well as ammunition and saddlery, which must be kept dry. Assuming that no boats are to be had, rafts can be made of timber or barrels, if these can be obtained. Some improvised rafts can be made :—

- (a) With tarpaulins, wagon-covers, saddle-covers.
- (b) With canvas watering-troughs.
- (c) By floating a G. S. wagon on casks.
- (d) With camp-kettles.

(a) Tarpaulins can be made use of in various ways :—

- (i) A G. S. wagon, whose wheels, &c., have been taken off and whose body is wrapped in a tarpaulin, makes an excellent boat to carry several men and saddles.
- (ii) A tarpaulin filled with hay or straw tightly packed, with its ends folded over so as to make a bag, will carry six or seven men with their saddles, and can also take a horse-artillery gun without limber. A wagon-cover, so treated, will take three men and saddles. In order to utilise saddle-covers in this way they must be used in large numbers, and should be made into a raft with light spars.

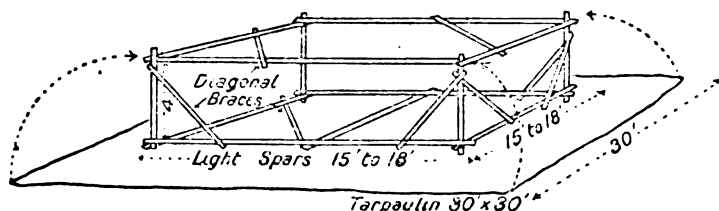


FIG. 6.—FRAME BOAT. SEVERAL DIAGONAL BRACES AND CHESING OMITTED.

- (iii) A boat capable of carrying a very large load can be constructed as shown in fig. 6, by making a square frame with 18-foot spars and placing it on a

tarpaulin, whose ends are brought over the frame. For ease in walking, a few planks should be lashed down to the floor of the frame.

(b) The service 600-gallon canvas troughs can be used to form a raft by lacing them over empty boxes placed in a row as shown in fig. 7. Two such floats joined together with a few light spars will carry sixteen men with their saddles. Time required to make them: six men one-and-a-half hours. These can also be used filled with straw like the wagon-covers; in this case light poles running the length of the trough are necessary to stiffen them.

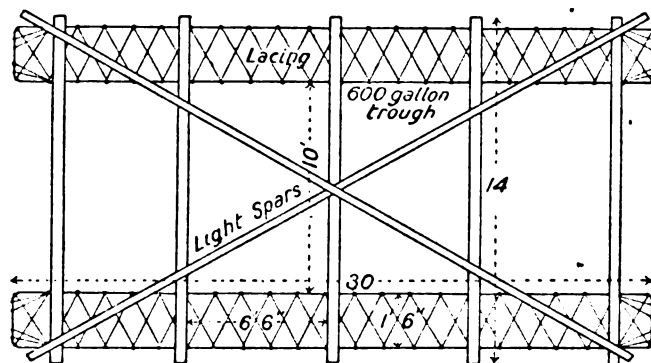


FIG. 7.—CANVAS TROUGH RAFT. LASHINGS AND CHESSEING OMITTED.

(c) To float a wagon on barrels, with, say, six 54-gallon casks, and some timber about 4×3 inches, the spars are lashed as shown in fig. 8, under the wagon. The casks are then fixed to the spars. The arrangement in fig. 8 will float a load of half a ton. If more casks can be obtained, the buoyancy will of course be increased.

(d) Fig. 9 explains how camp kettles or dixies can be used. The lids should first be secured by wire or spun yarn, and eight of them then lashed to a couple of lances, forming a pier. Four of these piers are lashed to three spars at right angles to them, and the whole made rigid by wire diagonals. A few planks, such as floor-boards, placed on top form a raft which will carry

IMPROVISED METHODS OF CROSSING RIVERS 539

about 500 lbs. It should be noted that the dixies should be bottom upwards in the water, as it is found that they fill with water in rough weather when right way up, and consequently

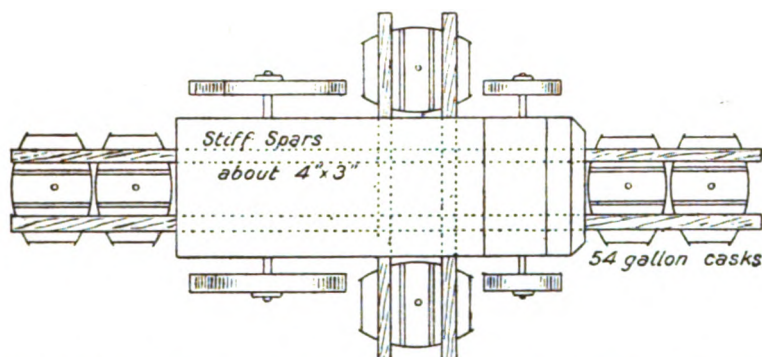


FIG. 8.—G.S. WAGON FLOATED ON 54-GALLON CASKS. LASHINGS NOT SHOWN.

swamp the raft. Time required to make such a raft: eight men two hours.

In conclusion, there is no doubt that parties of Cavalry will often be compelled to swim across rivers as they stand. There

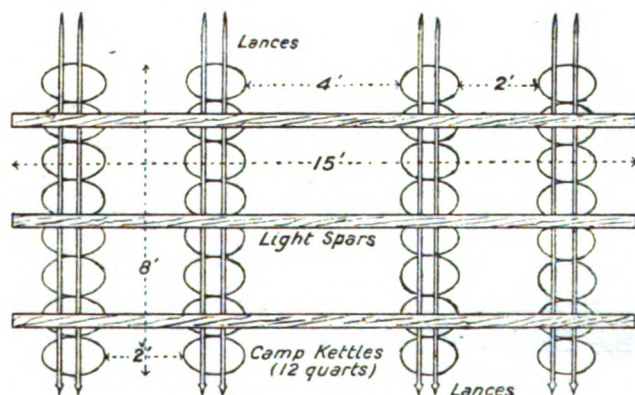


FIG. 9.—LIGHT RAFT OF DIXIES (12 QUARTS). LASHINGS AND FLOORING OMITTED.

is, nevertheless, an obvious advantage in keeping as much dry as possible, particularly rifles, ammunition, and clothing, and given time and material any of the above-mentioned methods may be utilised.

***THE INTERNATIONAL HORSE SHOW FROM
A CAVALRY POINT OF VIEW***

BY MAJOR F. R. LAWRENCE, D.S.O., 14th (King's) Hussars,
General Staff

Number of foreign officers competing—Description of the arena and jumps—
Jumping display before the King—Entries of British officers—Difference
between the hunter and 'jumper' classes—Lesson to be learnt from the
competition—Advantages and disadvantages of specially training horses—
Suggestions for producing competitors for future shows—Entries for 1909.

THE International Horse Show this year, for the second year in succession, was held at Olympia, and lasted from June 18 to 27.

Last year was the first time it was held in England, and it was such a success both then and this year that it is to be held again in London next June.

The expenses of such a Show are very great, but it is organised by lovers of horses, and practically all the profits of one year are used to swell the prize list of the next.

When one mentions the word 'organised,' one must congratulate those concerned on the excellent manner in which the competitors were paraded and everything was kept up to time.

This year it was especially interesting from the Cavalry point of view, owing to the large attendance of foreign officers. There were fourteen Italian officers, accompanied by Colonel Delmé-Radcliffe, the British Military Attaché at Rome, most of whom came from the Cavalry School, Rome; fifteen Belgians under the able guidance of Monsieur Dupuich, who is so well known at all Horse Shows on the Continent, and including Sous Lieut. Daufresne de la Chevalerie, who had so many victories at Olympia in 1907; four Dutch under the charge of Colonel Punt, who extended his hospitality to some British officers who visited the Horse Show at the Hague between July 6 and 12; French,

Spanish, and last, but not least, Prince Hermann of Saxe Weimar, on his grey 'Aristan,' the sole representative of Germany.

ACCOMMODATION FOR VISITORS

The majority of horse lovers in England, or at least as many as could find accommodation, visited Olympia at least once, and each time that they did so—and there had to be three performances daily to get through the judging of all the classes—they found numbers of valuable animals on which to feast their eyes. By a good arrangement an all-day ticket, costing only 6s., was issued, which enabled visitors not only to watch the three daily performances from the 'Floral Balcony,' but also to visit the thousand or so horses in their stables and to see the numerous and well-arranged stalls of the leading saddlers, carriage-builders, and other trades connected with horses, thus gaining in a single day a liberal education in horses and their surroundings.

DESCRIPTION OF ARENA AND JUMPS

The arena itself was only 350 feet by 80 feet, which is small compared to the open-air ring at the Hague or to the ring at the Dublin Horse Show.

The jumps, as will be seen from the photograph, cannot be said to resemble in the slightest any jumps which are met with in the hunting-field, and, besides, they are, of course, very much closer together.

On entering, the first jump was an ordinary bush fence, the second was a triple bar, which can be seen more in detail in one of the other photographs. It was an awkward obstacle for a hunter to meet on coming into the ring, and it might have been better placed as the fifth or sixth jump. The third was called the 'railway sleepers,' an obstacle, like the second, peculiar to the horse-show ring; the fourth was a gate; the fifth a post and rails; the sixth another gate; the seventh, eighth, and ninth were the first three over again; the tenth was a peculiar shaped wall; and the eleventh a bank, the like of which, in Ireland at

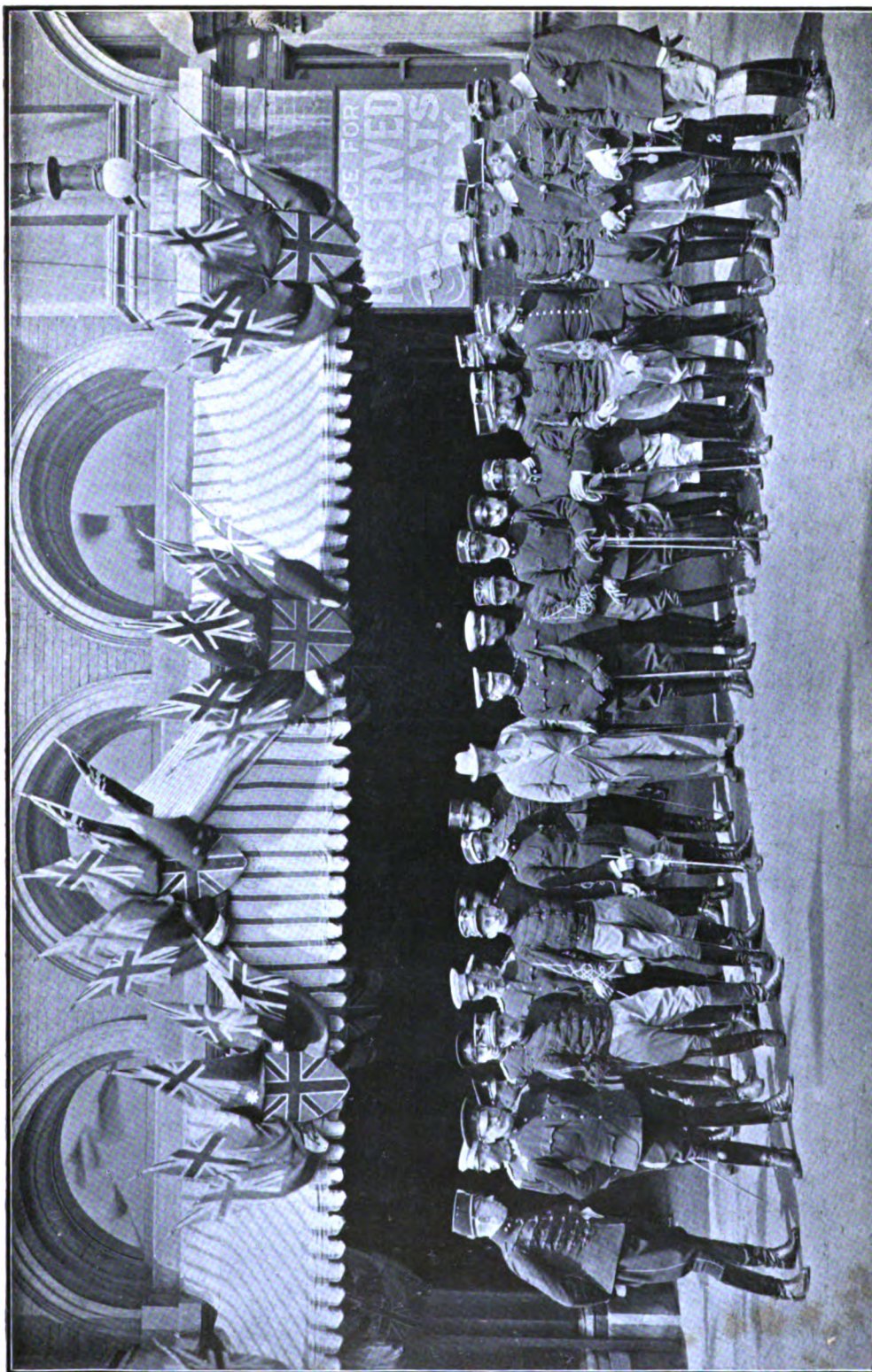
all events, is never seen. The high jump also was peculiar to horse shows.

JUMPING DISPLAY BEFORE THE KING

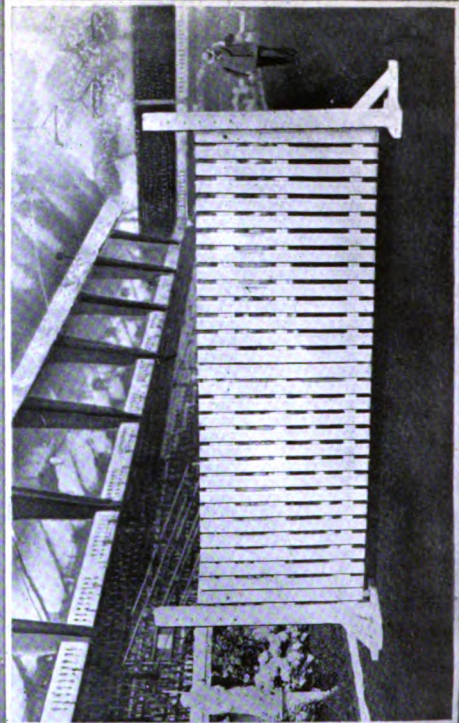
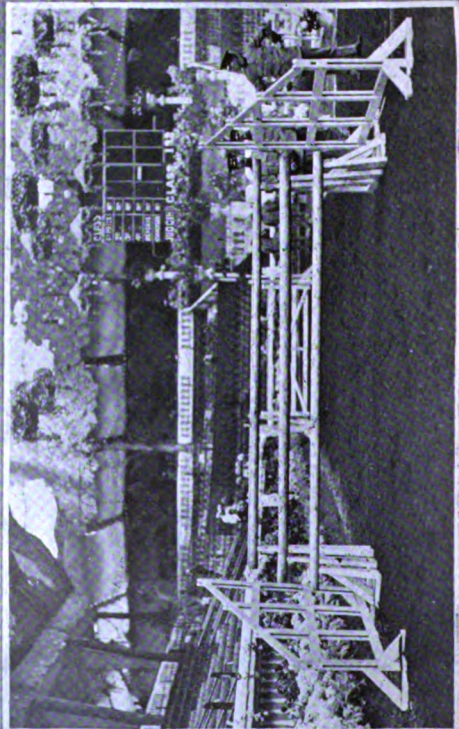
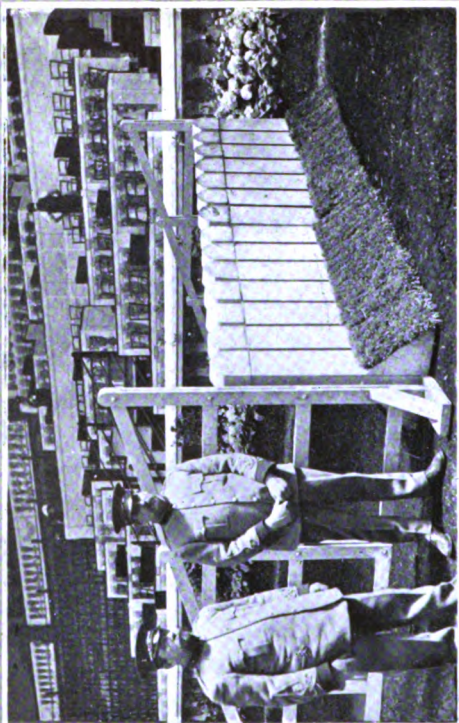
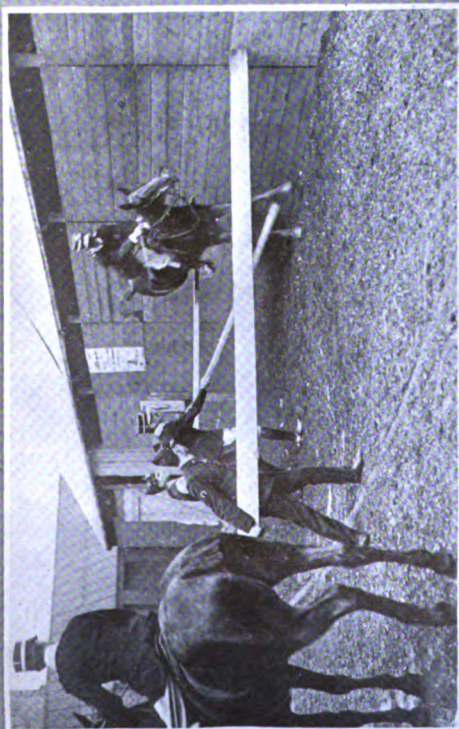
On the day when His Majesty visited the Show, three British officers took part in the jumping display with representative officers of other nations. The following is a list of the fifteen competitors :—

No.	Nationality.	Name.
1.	Belgium.	Lieut. de Blommaert, 1st Guides.
2.	Belgium.	Sous Lieut. Daufresne de la Chevalerie, 3rd Lancers.
3.	Belgium.	Sous Lieut. Picard, 2nd Lancers.
4.	England.	Lieut. M. Graham, 16th Lancers.
5.	England.	Lieut. R. B. Oldrey, 4th Dragoon Guards.
6.	England.	Lieut. N. Reynolds, 21st Lancers.
7.	France.	Lieut. Broudehoux, 5th Dragoons.
8.	Germany.	His Serene Highness Prince Hermann of Saxe Weimar, Duke of Saxony.
9.	Holland.	Lieut. C. H. Labouchere, 2nd Hussars.
10.	Holland.	Lieut. H. Mathon, 2nd Hussars.
11.	Italian.	Lieut. Acerbo, Novarian Lancers.
12.	Italian.	Lieut. Bolla, Nizza Regiment of Cavalry.
13.	Italian.	Lieut. Starita, Guides Regiment of Light Cavalry.
14.	Spanish.	Lieut. Febrel, Royal Spanish Horse Guards, Madrid.
15.	Spanish.	Captain Marquis Martorell, Princess's Hussars, Madrid.

One cannot help mentioning that of the three British officers, who gave as good an account of themselves as any of the others, one had never ridden his horse over a bank before in his life, one had only ridden his horse twice previously, while the third had never been on the back of the horse that he rode until just before he appeared in the ring.



COMPETITORS—THE INTERNATIONAL HORSE SHOW.



THE INTERNATIONAL HORSE SHOW—OLYMPIA.

ENTRIES OF BRITISH OFFICERS

Of British officers twenty-two competed in different classes. Ten days before the Show only three had entered in the Chargers' class—in which they eventually swept the board—and four in the Hunters' class. In the ordinary jumping competition round the course and for the High Jump there was only one entry, since it was generally recognised that British officers did not keep the class of horse that could enter for the competitions. Representations were then made by the persons directing the Show that it would be a pity if more of our officers did not take part in these competitions, and Lord Lonsdale and the Directors of the Show generously offered to mount any officers who would attend, with the result that officers were practically falling over one another to get mounts. The day before the Show opened, some horses were on view for officers wishing to compete, and several of them were provided with mounts, while three horses were sent from the Cavalry School at Netheravon—which is now such an important establishment for the training of young Cavalry officers.

DIFFERENT CLASSES OF HORSES

As regards the horses, there were of course numerous classes, and perhaps one of the most popular was the Hackneys. There is no doubt that they are coming very much to the fore in public notice, and many experts even say that the best class of horse is got by a hunter sire out of a hackney mare. But in an article in the CAVALRY JOURNAL we have to consider more the hunter, jumper and charger classes.

DIFFERENCE BETWEEN HUNTER AND JUMPER CLASSES

Though there are a few brilliant exceptions, such as Mr. F. W. Foster's 'Paddy,' a well-known hunter with the Meynell, who won 1st prize in an open jumping competition round the course, there is a very distinct difference between the hunter and

'jumper' classes. The one is trained for jumping in the field and is not accustomed to jumping in enclosures with all the popular surroundings of a great show; the other is trained for the arena and may be of comparatively little use in the field.

Anyone who saw the performance of qualified hunters jumping on the afternoon that His Majesty visited the Show would have thought that the horses competing, almost without exception, had never jumped anything in their lives, whereas they were, as a matter of fact, all well-known hunters and were ridden by well-known men to hounds.

When they were brought into the ring the band was playing, and the crowds of people so attracted their attention that they seemed to look on the jumps as a very secondary consideration and made a decidedly poor display, and the more so when they discovered that they could so easily knock down the jumps.

This was certainly typical of the English hunter jumping in, cold blood and in very unnatural surroundings, and no one could help noticing the difference between the performance of these horses and that of the horses trained for show-jumping ridden by men who were also accustomed to it.

This is really little to be wondered at when one remembers that the foreign officer trains his horse practically the whole year round for the *Concours Hippique*, while we take our exercise at polo and hunting.

LESSON TO BE LEARNT FROM THE COMPETITION

The obvious lesson to be learnt is that if English hunters are to compete with 'jumpers' at future shows, they must be specially trained and the riders also must be specially trained, since the hunting seat, though undoubtedly the most practical, is not on the whole the best for this class of jumping.

The question arises, Is it worth while, from a Cavalry point of view, to train horses specially?

ADVANTAGES AND DISADVANTAGES OF SPECIALLY TRAINING
HORSES

The disadvantage is that it would take a deal of time which might be given, and better given, to other points in a man's military training.

The advantages are :

Firstly, the fact that training a horse improves a man's horsemanship.

Secondly, the competition promotes friendly rivalry with foreign officers.

On the whole, the balance is in favour of training a certain number of horses and officers for this form of jumping.

SUGGESTIONS FOR PRODUCING COMPETITORS FOR FUTURE SHOWS

In order to produce competitors for these International Horse Shows it is suggested that the Officers' Jumping Competition at the Royal Naval and Military Tournament should be modelled on the lines of the jumping competitions at these Shows, and that, if necessary, preliminary competitions should be held at the Command Tournaments to select a certain number of officers to compete at the Tournament. The winners at the Tournament would then be the British representatives at the International Horse Show.

There are Horse Shows every year at Paris, Rome, Brussels, The Hague, Buenos Ayres, etc.

Some British officers are going to compete at the Buenos Ayres Show next month.

ENTRIES FOR 1909 SHOW

In conclusion, it may be mentioned that intending competitors at next year's Horse Show in June will be able to obtain the Prize List early in the year, while after April 1 the details of the proposed jumps can also be seen. All inquiries should be made to the office of the International Horse Shows, Limited, 12 Hanover Square, London. Entries are due about a month before the Show begins, or later with a double entry fee.

THE TRAINING OF A YEOMANRY BRIGADE

BY A YEOMANRY OFFICER

The functions of Cavalry—Yeomanry to act as protective Cavalry—The duties of protective Cavalry—Operations for which Yeomanry brigades should be trained—Establishment of a brigade—Recommendations as to training.

BEFORE a commander prepares his programme of training, it is essential that he should know exactly what are the duties for which his command is to be prepared.

The functions of Cavalry are very clearly set forth in Chapter VII., 'Cavalry Training,' 1907, and the mounted troops of the Regular Army are divided accordingly into :

- (a) The Cavalry division for strategical exploration under the instructions of the commander-in-chief.
- (b) The mounted brigades, for the provision of the first line of security, under the direct orders of the commander of the force they are protecting.
- (c) Divisional Cavalry, forming part of a division of all arms, for scouting in connection with the Infantry, advanced, rear, or flank guards, or outposts, and for escort and orderly duty, despatch-riding, &c.

The strategic work of a Cavalry division is outside the scope of the Yeomanry *as at present armed*; to meet and overthrow the enemy's Cavalry, an essential preliminary to the reconnaissance of his main columns, requires 'the assumption of a vigorous mounted offensive in co-operation with the guns.'

'On such occasions,' 'Cavalry Training' continues, 'dis-mounted action will, at the best, have but a negative result. To

check the hostile Cavalry is not sufficient : it must be defeated and weakened morally and actually as much as possible.'

Armed with a rifle only, and precluded from taking part in mounted combats, Yeomanry must be content to abandon all idea of a strategic *rôle*, and, with the exception of those regiments which are allotted as divisional Cavalry, seek their sphere of usefulness in the 'Service of Protection,' for which the mounted brigades of the Regular Army are designed.

The duties of Protective Cavalry are concisely outlined in 'Cavalry Training,' Section 153; it furnishes the first line of security for the army or group of divisions with which it is operating, and protects it against hostile enterprises, its position being, therefore, governed by that of the force it is covering : it carries out the topographical reconnaissance of the country in front of the main army, and ascertains and reports upon its resources in supplies, water, communications, camping-grounds, and billeting accommodation. When the armies come within striking distance it seizes and holds important points in front of the slower moving Infantry, and denies them to the enemy, and it carries out the tactical reconnaissance of the enemy.

The protective Cavalry commander is under the direct orders of the commander of the force he is covering, and his command must be sufficiently far ahead to enable the column it covers to concentrate for battle.

Obviously a mounted brigade will usually extend over a considerable front, and while the armies are separated, its *rôle* will be mainly defensive ; protective reconnoitring patrols suitably supported, pushed out along all the approaches by which hostile bodies might advance, will thoroughly search the country, prevent the enemy's patrols from gaining information, and further give timely warning of his approach in force.

Behind this moving screen larger bodies of protective Cavalry follow, between which effective communication must be maintained to ensure, if necessary, concentration and co-operation in opposing hostile columns, which may endeavour to effect a surprise.

Instead of marching at a uniform rate and distance in front of the main army, 'Cavalry Training' recommends, when possible, a system of advance by leaps and bounds, one portion of the protective Cavalry moving rapidly forward to take up a line of observation along some natural feature, such as a ridge or river, the other portion maintaining a line of observation in rear until the new line is taken up, and then passing through it to a position still further on.

Connecting posts to maintain communication between the protective Cavalry and the divisions it covers will be found from the divisional Cavalry.

As the armies approach within striking distance, the protective Cavalry becomes responsible for the tactical reconnaissance of the enemy's position, and its *rôle* becomes offensive, rather than defensive, i.e. to drive in his advanced troops, and cover the examination of his main position by the staff and other officers of the attacking force.

A very clear line is thus given to Yeomanry brigade commanders as to the nature of the operations for which their brigades should be trained.

(a) Reconnaissance.

1. To locate the enemy ; to watch for his approach.
2. To collect information relating to positions, roads, railways, rivers, &c.
3. The transmission of information.

(b) The occupation of natural features as lines of observation and defence.

(c) Fire action dismounted ; the attack and defence of localities, bridges, woods, villages, &c.

(d) Detached duties : marches by night and day, crossing rivers, repair and destruction of communications, foraging, and all the details which go to make mounted troops independent and self-contained.

(e) Concentration and co-operation with other arms on the battlefield.

TRAINING OF A YEOMANRY BRIGADE 549

The following is the composition and strength of a mounted brigade on a peace footing. On mobilisation a certain number of men will be attached for transport and other duties, and a larger number of horses, wagons, and carts will be required.

—	Officers	N.C.O.s and men	Attached		Horses allowed for annual training (in- cluding offi- cers, riding, draught, and pack)	Guns	Wagons and carts al- lowed for training
			Officers	N.C.O.s and men			
Headquarters	2	1	—	4	3	—	—
1st Yeomanry Regiment	25	449	3	10	431	1 machine	3
2nd Yeomanry Regiment	25	449	3	10	431	1 machine	3
3rd Yeomanry Regiment	25	449	3	10	431	1 machine	3
Horse Artillery Battery	5	148	3	5	117	4 guns	4 amn. wagons, 1 wagon
Mounted Brigade Ammunition Column	2	66	—	4	45	—	6 amn. wagons, and 1 wagon
Transport and Supply Column	4	82	1	2	28	—	11
Mounted Brigade Field Ambu- lance	6	104	—	2	39	—	12
Total . .	94	1,748	13	47	1,525	4 guns 3 m. guns	44

A Yeomanry brigade is therefore a complete and self-contained unit.

Of rations and fuel it has, when on service, four and a half days—i.e. half a day's ordinary ration and one emergency ration carried on the yeoman; one day's ordinary ration and two days' groceries carried in the regimental transport; and one day's ordinary ration complete and one emergency ration carried in the transport and supply column.

Of corn it has two and a half days' supply, half day's on the horse, one day in the regimental transport, and one day in the transport and supply column.

As a rule the brigade will live by requisition on the country it passes through, and the regimental wagons will be refilled locally each night, thus keeping the transport and supply column intact.

Of ammunition, the guns have 280 rounds with the battery and ammunition column, while for rifles, the soldier carries 100 rounds, the regimental S.A.A. carts carry 100, and the H.A. ammunition column carries 100, total 800.

The next echelon of ammunition is the divisional ammunition columns of the force behind, which carry 128 rounds for the guns and 100 for the rifles.

The medical organisation includes a mounted brigade ambulance, consisting of a bearer division and a tent division with accommodation for fifty patients ; the whole is divisible into two sections, and each is provided with four heavy and four light ambulances.

Only one service is unprovided for, i.e. Engineers, and for crossing rivers, improving watering facilities, &c., the want of a field troop will be distinctly felt.

To exercise this machinery and give it an opportunity of working together as a whole, each part performing its peculiar function, is not possible in a stationary camp, and for at least three days at the finish of each annual training the Yeomanry brigade should be inspected on the move, carrying out a realistic series of operations to illustrate the successive phases of a possible situation of war, and thus testing the machinery of supply of all kinds, evacuation of sick, and so forth.

It is to be hoped that funds will be at the disposal of Territorial county associations and mounted brigade commanders, thus to make the test of inspection a reality.

That there must be some change in the times arranged by the Yeomanry for troop, squadron, and regimental training is clear, since the period of permanent duty has not been lengthened and time *must* be found for brigade training.

TRAINING OF A YEOMANRY BRIGADE 551

Previous to the recent organisation of Yeomanry brigades the latter part at all events of each period of permanent duty was given up to regimental training. This time will now be occupied by brigade training, while regimental training will probably occupy the earlier portion of the period. Consequently not only troop, but also squadron training must be got through, wherever the local conditions permit, before the permanent duty begins.

The Artillery should get through their section training, and be well advanced with their battery training before joining the brigade camp.

In the transport and supply column and the mounted brigade field ambulance, the men should have learnt to ride and drive and be well advanced, at all events with the theoretical portion of their technical duties, before coming to camp.

This is no doubt a high level at which to aim, but unless we aim at it and do our utmost to achieve it the time available for brigade training will be reduced to nil, and the usefulness of the system of brigading Yeomanry in peace time so as to be ready for war will be very seriously diminished.

Training before camp ought therefore to include :

1. A monthly troop, squadron, or battery mounted drill during the autumn and winter.

2. Week-end tactical schemes, to be carried out on cycles. As an example of such a scheme: one regiment last March assembled some 150 men on bicycles on a Saturday afternoon, carried out operations that afternoon and night, billeted in some schools, and continued the operations next day after a church-parade. The local Territorial Infantry took part in it with great interest. The cost was two shillings per head.

3. Frequent lectures by troop and squadron officers. Each lecture should impress a few simple things on each man present, and men should be questioned at the end of each lecture to see if they have understood what has been said.

4. Training of scouts and despatch riders, using cycles to save expense when horses are not easily available.

The facilities for the attachment of officers for short periods to Regular regiments and batteries during squadron and battery training are now ample, and the more Yeomanry officers take advantage of them the better. It is to be hoped that equal facilities may be given for the attachment of N.C.O.s for even a week at a time. The writer gained great benefit by being attached as a N.C.O. to a Cavalry regiment, and others would do likewise.

Though regiments are organised in brigades, the squadron system must not be lost sight of, and it must be remembered that the squadron is the unit tactically as well as administratively.

‘The well-trained squadron is the foundation on which all employment of Cavalry in larger bodies is based,’ says ‘Cavalry Training,’ but it is a big step from the training of the squadrons to the assembly and fitting together of all the parts of the brigade machinery and their smooth and intelligent working as a whole, and for this the period of camp is all too short. Officers of all ranks should therefore be equipped before they go to camp with at least a sound theoretical knowledge of the work of a mounted brigade, and this can best be gained by practice in brigade staff rides, regimental tours, and war games, as indicated in Chapter VII., Combined Training. Simple tactical problems involving co-operation between the different units of the brigade might also be set with advantage for solution during the winter months.

From Friday afternoon to Monday morning even the busiest man can often get away, and working on cycles, *not* in motor-cars, a good deal of ground can be quickly covered and valuable experience gained at little cost.

That the question of success or failure of the mounted brigades depends on the officers is clear to everyone, and certainly to foreign officers, to many of whom the writer has spoken. He appeals, therefore, to the officers of these brigades to

do their very utmost to make their brigades first-rate fighting units, ready for any occasion should it most unfortunately arise. The progress of their training is watched and reported on in many other places besides Great Britain.

PROBLEM No. 6

RESULT

THE best answers to these questions are (marks obtained out of possible 100 shown in margin) :

- 90 1st, No. 12, Corporal of Horse, W. Borland, R.H.G.
- 78 2nd, No. 4, S.S.M. W. H. Akhurst, 7th Hussars.
- 76 3rd, No. 2, Sergeant F. G. Woollett, 17th Lancers.

The only other paper worthy of mention is :

- 63 No. 8, Bombardier C. A. Payne, 103rd Battery R.F.A.

A number of the competitors did not pay sufficient attention to the actual nursing, i.e. the comfort of the patients, some indeed neglecting this point altogether, and merely running off to the public-house for spirits or ale to drench them with.

The use of clean warm water for bathing a sore also seems not to have been generally known.

A prize of a 'Cavalry' Watch has been forwarded to each of the three successful competitors.

September 4, 1908.

J. TAPLEY (CAPTAIN), A.V.C.

HORSE ARTILLERY WITH CAVALRY*Notes on the Cavalry Division Training on Salisbury Plain*

BY CAPTAIN B. VINCENT, R.F.A.

(Written by request.)

Consideration of the work on which Cavalry may be employed—The employment of Horse Artillery in the Cavalry fight—Machine guns and Horse Artillery—Drill and Manœuvre—Transmission of orders.

INTRODUCTION

BEFORE attempting to discuss the action of Horse Artillery with Cavalry, we should first have a clear idea as to the work Cavalry is likely to be engaged in.

Our training manuals order us to prepare for a Cavalry battle, a conflict between concentrated divisions of 'independent or strategical cavalry.' We must, therefore, determine how Horse Artillery is to co-operate in such an encounter.

We should also consider how to use Horse Artillery if the nature of the country prohibits the concentrated movements of such large mounted forces as Cavalry divisions ; or in the event of the Cavalry on one side declining shock action, and occupying a position instead, a ridge, a railway, or line of villages commanding the main thoroughfares. Nor should we think only of the action of Cavalry against Cavalry, but also of the part the arm may take in the general battle. The increased range and accuracy of the rifle has conferred upon Cavalry a greater power of influencing the course of an action than it formerly possessed. When opposing masses of Infantry have become engaged, batteries of Horse Artillery working with Cavalry on the enemy's flanks may do great service. Also, the mobility of both may be utilised in an emergency to fill temporarily a gap in the line of battle.

Finally, in the pursuit, Cavalry with Horse Artillery will have a great opportunity, provided the horses have anything left in them. When Infantry are retreating, defeated, and probably short of ammunition, a force of Cavalry with guns operating boldly on the flanks of the retreating columns may easily turn defeat into a rout.

As the action of Horse Artillery in support of Cavalry, when all arms are engaged, does not differ materially from that laid down in the training manual for Field Artillery generally, it requires no comment. This article will therefore be devoted to the employment of Horse Artillery in the 'Cavalry fight'—*i.e.* in the 'tactical collision'* of 'strategical Cavalry' divisions.

Unfortunately history throws little or no light on the subject. 'Strategical Cavalry' has never yet charged 'strategical Cavalry' in war.

II. THE EMPLOYMENT OF HORSE ARTILLERY IN THE CAVALRY FIGHT

The recent operations of the Cavalry division on Salisbury Plain afforded valuable instruction in drill and manœuvre in mass, details of which will be touched on in Part IV. It is difficult, however, to deduce anything tangible in the way of principles, for the employment of Horse Artillery with Cavalry, from the operations that took place.

It was proved how absolutely necessary it is either to detach the Horse Artillery to a flank, or to manœuvre the Cavalry away from the Horse Artillery, before the deployment for the attack takes place. If the Horse Artillery remains 'glued to the Cavalry'† the fire of at least a portion of the guns will most certainly be masked. 'Cavalry Training,' s. 150, ii, suggests that of these two alternatives it may be easier as a rule to detach the Cavalry. It of course depends on knowledge of the enemy and on the formation of the ground. On Salisbury Plain the R.H.A. was often detached, but it was not always allowed

* See 'Cavalry Training,' s. 144, page 194. † 'Cavalry Training,' s. 150, ii.

sufficient time. It is important that Cavalry officers should remember that Horse Artillery has more to do than Cavalry before taking part in a fight. Time is required for reconnaissance of ground, for the selection of a position and the best approach to it. It is not only a question of rapid movement. R.H.A. batteries can get over the ground quite fast enough if they know where to go to. If time is not available, they must still do their best, but perfect co-operation at the critical moment can hardly be expected.

A distinguished German officer commanding a Prussian Cavalry division, in conversation with the writer, showed that he appreciated the necessity for giving the gunners time. He said that in preparing for the Cavalry fight his first orders were always to the Horse Artillery.

It must also be remembered by officers of both arms that Horse Artillery exists simply and solely to help the Cavalry. It is not the business of the Cavalry to look after their guns, beyond giving them a suitable escort if required. Cavalry officers must not be hampered in their own tactics by the guns. They should, however, bear in mind that their very useful auxiliary is present, and the aim of their tactics should be to draw the opposing Cavalry across the front of their guns. On the other hand, the guns can and must take the greatest risks in order to help ; and the reason they can do so is that they will never be charged in front by Cavalry who know their business. Cavalry may think in peace time that they can ride up to the muzzles of quick-firing guns in action, but in war they will not do so ; partly because they will not face the inevitable loss entailed, but chiefly because it is unnecessary. The guns are the 'fruits of victory.' If the Cavalry can beat the opposing Cavalry, they will get the guns without charging ; and if they cannot beat the Cavalry, they could not keep the guns even if they got them.

It is the duty of Cavalry to attack Cavalry : and it is the duty of Horse Artillery not to be drawn into an artillery duel, but to destroy the enemy's Cavalry. The moment for doing

this is when the latter is already committed to the attack. A Horse Artillery Commander may upset the plans of his General just as much by opening fire too soon, and so diverting the enemy, as by not firing at all.

It is hard to conceive this Cavalry fight on a large scale. It appears to the writer that the movements of even 'strategical Cavalry' in war will be much more deliberate than peace manœuvres often lead us to suppose. Commanders will exercise great caution before risking everything in a mounted attack over ground that can be but partially reconnoitred. In any case, it is clear that if Horse Artillery is to co-operate effectively it must surprise the enemy with its fire.

In order, therefore, to avoid revealing prematurely the presence of the Horse Artillery, it will be necessary to manœuvre the guns into some position concealed from the enemy's view, from which they may come rapidly into action when the critical moment arrives.

The senior officer present with the guns will have to order the advance into action on his own initiative without waiting for orders. Further attempt at concealment will then be unnecessary. The enemy's Horse Artillery is not likely to know the range, and presumably will be firing at Cavalry also. The main object is to get the guns into the best position for effective fire on the enemy's Cavalry, and for this reason it may often be advisable to bring them into action on forward slopes.

Concealment is of vital importance to Horse Artillery acting with Cavalry against Cavalry, but only up to the moment for coming into action. In this, and also in the following respect, the tactics of Horse Artillery in the Cavalry fight differ essentially from those laid down for Artillery generally. With Field Artillery, concentration of fire combined with dispersion and concealment of batteries is the object aimed at, the attainment of which represents high technical training.

In the case of Horse Artillery in the Cavalry fight, dispersion of batteries means multiplication of lines of fire, with corresponding

risk of fire being masked. This, as the Inspector General of the Forces pointed out at a conference on Salisbury Plain, is a danger to be guarded against. It is necessary to reduce the number of lines of fire to a minimum during a Cavalry battle. To do so means the massing of the Horse Artillery in action, the concentration of batteries as well as of fire.

Now two R.H.A. brigades in action occupy a front of 475 yards, and once the guns are in position, the direction in which this front faces can only be altered to any appreciable extent by limbering up. This, therefore, is another reason for retaining the batteries in readiness under cover, and not committing them to action, until the appearance of the enemy's Cavalry precludes all doubt as to the direction in which the guns should face.

III. MACHINE GUNS AND HORSE ARTILLERY

On Salisbury Plain, partly owing to the restricted manoeuvre area and the presence of other troops, the Cavalry division often started the day's operations so close to the 'skeleton enemy' that the opposing forces were at grips before plans could be formed or instructions issued. The R.H.A. when moving with the Cavalry in the preparatory formation was sometimes called upon to come into action against a highly mobile 'flagged enemy' which suddenly appeared only a few hundred yards away. On such occasions the enemy had either conquered or been captured before the R.H.A. had time to deploy and come into action. For such work a single smooth-bore gun firing case shot might possibly have been more efficacious than two whole brigades of 18-pounder quick-firers.

The frequent occurrence of such tactics was misleading, and tended to convince some Cavalry officers that R.H.A. as organised at present is too unwieldy a mechanism for dealing with the fleeting opportunities, at rapidly moving targets, that alone are likely to present themselves in the Cavalry fight. Some even maintain that machine guns in travelling carriages are all that Cavalry requires to accompany it in the field.

In examining such criticism, we must remember that our

Cavalry division as a whole is also a very large organism, that the difficulty of concentrating four Cavalry brigades in action is likely to be very great, and only possible on suitable ground under an exceptionally gifted commander. In short, the difficulty of concentrating effectively the whole of the R.H.A. in action will be proportionate to the difficulty of concentrating the whole of the Cavalry. On many occasions it may be only possible or advisable to employ a proportion of each.

If, however, fire action is to take part in the mounted encounter, our present R.H.A. equipment is eminently suitable for the purpose. The question as to whether the whole or any portion of the R.H.A. with a Cavalry division can be usefully employed depends not only upon sound tactical use of guns by Cavalry Commanders, but on the officers of the R.H.A. being quick to grasp situations and bold to act.

Machine guns can never take the place of Horse Artillery. They do not stand the jolting inseparable from fast movement with Cavalry. In fact, as South African experience taught some of us, to get continuous good work out of a machine gun, whether 'maxim' or 'pompom,' it required nursing like a child and humouring like a woman.

It is a common error to imagine that it is easier or quicker to find ranges with a 'pompom' than with Horse or Field Artillery guns. A moment's consideration will show that this is by no means the case. At short ranges, say up to 1,000 yards, when the 'time of flight' is very short, an intermittent stream of pompom shells may be fired, and the range quickly ascertained. At medium or distant ranges, groups of three to five shells must be fired, and time allowed for observation between the firing of each group. At such ranges, and in fact in any case, why not fire shrapnel from a gun instead? Observation is easier and the destructive effect probably greater.

Again, as we may have to encounter Cavalry with guns, we must also possess them. In war, no amount of reasoning will convince human nature that Artillery is not a necessity if the enemy possesses it. There are few feelings more calculated to

demoralise than that of being outranged, of suffering loss without being able to retaliate. There is plenty of scope for the employment with Cavalry of both maxims and Horse Artillery guns. Both undoubtedly increase the offensive and defensive power of a Cavalry division.

IV. DRILL AND MANŒUVRE

During the recent concentration of the combatant troops of a Cavalry division on Salisbury Plain considerable practice was obtained in manœuvring in mass. Although rear ranks hardly existed, the frontage of the Cavalry and R.H.A. was the same as it would be on mobilisation.

The 'diamond preparatory formation' was tried, but the G.O.C. Cavalry Division soon decided that on ground such as Salisbury Plain this formation is unsuitable. The hollows are often too narrow, and the brigades echeloned on the right and left are bound to be exposed if the formation is rigidly adhered to. In such winding valleys, it may often be necessary to fall into column formation in order to get cover from view.

'Column of brigade masses' closed to 40 yards distance between brigades, with the R.H.A. in mass close behind the leading Cavalry brigade, proved a useful formation for manœuvre.

In the 'diamond formation'—which, after all, is only double echelon with one brigade in reserve, and which may at times be useful—the R.H.A. was placed in mass on one or both flanks of the leading Cavalry brigade. The former position was found to be the more suitable of the two. If the R.H.A. brigades are separated, one moving on either flank of the leading Cavalry brigade, the deployment of the latter is liable to be hampered.

When moving in 'divisional mass' the R.H.A. was generally placed in rear of one of the flank Cavalry brigades. If the division then changed into 'column of brigade masses,' the guns remained on one flank of the column. This latter is the position indicated for R.H.A. and machine guns on the march, both in 'Cavalry Training,' s. 149, and 'Field Artillery Training,' s. 87.

The movements of the Cavalry division as a whole demon-

strated the necessity for checking the tendency to open out. In order to attain the requisite amount of compression combined with pace while approaching the enemy, it is essential that exact intervals be kept. To render this possible for R.H.A. moving at a rapid pace in mass, wagons were allowed to drive on the left rear of their respective guns instead of following exactly in the tracks of the latter. This enabled the wagon drivers to see where they were going, and made it easier for the column to keep closed up.

V. THE TRANSMISSION OF ORDERS

The G.O.C. Cavalry division is accompanied on the march, and when an action is imminent, by the O.C. R.H.A. The latter hears reports as they arrive, and is available to offer technical advice when plans are being formulated. During an action, if the Artillery Commander is with his guns, his staff captain represents him at Cavalry division Headquarters.

During the operations on Salisbury Plain, the Cavalry Commander as a rule issued instructions by calling up the brigadiers, and issued orders by sending a galloper to each of them. The O.C. R.H.A. was obliged to do likewise in communicating with his brigades. The want of a second orderly officer, *i.e.* one for each R.H.A. brigade, was soon felt.* Only officers can be relied upon to explain situations or to carry verbal instructions during a Cavalry battle.

On Salisbury Plain there was seldom time to write even the briefest order, or to use the signallers, but the difficulty of transmitting orders or instructions, in time for them to be of any use, was certainly accentuated owing to the rapidity with which the Cavalry moved and to the nimbleness of the 'flagged enemy.' The Cavalry horses were in better condition than it is likely they would be in war, and they carried no kit nor ammunition. Neither did the ground offer any obstacles to the rapid deployment or movement of mounted troops in any direction.

* The table in War Establishments, 1907, p. 38, allows the O.C. R.H.A. the following staff in the field: one staff captain, one orderly officer, three orderlies, four signallers (including horse-holder).

EDITORIAL NOTES

HOME

Long March of the M.I.—The following account, kindly sent us by Major A. McNeill, Adjutant of the M.I. at Longmoor Camp, shows what can be done with absolutely raw material if strict supervision is exercised on the line of march :—

‘Our men and horses having had a very “thin” time during their month on the Plain owing to the wet and cold, it was decided that we should “trek” straight back to Longmoor. The distance is fifty-five miles from West Camp, and the last half of the journey over narrow stony roads between Overton and Selborne.

The following is a rough time-table of the march :—

A.M.	P.M.
5.0. Marched from West Down (North).	1.0. Arrived Overton. Two hours halt. Dinners. Water and feed. Off saddle.
5.15. Halt (after short trot). Look round saddlery.	3.5. Left Overton.
6.0. Halt ten minutes. Crossing bridge over Avon.	4.0. Halt ten minutes (Preston Can-dover).
7.20. Arrived Tidworth. Water and feed.	5.45. Arrived Medstead. Water.
8.30. Left Tidworth.	6.10. Left Medstead.
9.0. Halt five minutes.	7.30. Halt ten minutes (Selborne).
10.30. Halt ten minutes and over.	8.30. Arrived Longmoor.
11.45. Halt ten minutes.	N.B.—There was a bran mash ready for every horse on arrival.

The men led on foot frequently for fifteen to twenty minutes at a time ; and we did long trots of half-an-hour or so at “hound pace.”

Our casualties during the march were very few amongst 360 horses, especially taking into consideration that the men had only been at the job two months and that the last hour was in the dark : 2 girth swellings ; 1 sore back ; 1 wrung wither* ; 1 lame (sprained tendon) ; 2 marked knees (1 very slight) ; total, 7.

ESTABLISHMENTS

The following are the principal changes for 1908-9 in the establishments of Cavalry units :—

Head-Quarters Cavalry Division.—15 motor reserve officers and 1 divisional ordnance officer ; 15 motor cars take the place of 15 wagons and carts.

Head-Quarters Mounted Brigade.—3 motor reserve officers and 3 motor cars are added.

* This was done by the Yeomanry pattern saddle, which we find most unsuitable ; but have been ordered to use 50 per cent. of them to wear them out.

Cavalry regiment.—Increase of 10 men, 14 horses, and 2 wagons in machine-gun section.

Slight alterations in number of men and horses in ammunition column and transport.

R.E. Field Troop.—The establishment includes 2 field-line telegraphists and 1 office telegraphist for tapping lines or making temporary repairs and 3 men trained in signalling for communication.

M.I. Battalion.—Decrease: 2 officers, 6 sergeants, 91 men, 55 horses, owing to a reduction from 4 companies to 3 companies.

Cavalry Division T. and S.—Decrease of 1 officer, 16 men, 25 horses.

COLONIAL

Canada.—Full descriptions have been given in all the papers of the review of troops by H.R.H. The Prince of Wales at Quebec, and there is, therefore, no purpose in repeating them, but the following field state, which we get from the *Canadian Military Gazette*, may be of interest :—

Present on Parade—Officers, 841 ; other ranks, 11,581 ; total, 12,422.

Horses, 2,134 ; guns, 26 ; wagons, 21.

On duty—Officers, 56 ; other ranks, 1,170 ; total, 1,226. Horses on duty, 246.

Absent through illness—Officers, 5 ; other ranks, 104. Sick horses, 115.

Grand total—902 officers and 12,850 other ranks ; horses, 2,495.

India.—We shall publish in the January number of the JOURNAL a full account by Colonel Unwin of the work of his regiment, the 21st Cavalry, in the Mohmand Expedition.

FOREIGN

Bulgaria.—The manœuvres for this year have been cancelled.

France.—The French manœuvres took place in the neighbourhood of Valencay from September 13 to September 18. We hope to give in the January number a report of the Cavalry work.

Germany.—The grand manœuvres took place in Alsace-Lorraine as usual in the presence of the Kaiser. We hope also in the January number to give a report on the Cavalry work.

The *Times* states that the efficiency of the strategic railway system of Alsace-Lorraine, which has been so remarkably developed in recent years, is now amply proved. The *Cologne Gazette* declares that on one day 39 special trains were despatched within six hours from the stations of St. Avoird, Karlingen, Spittel, Fasschweiler, Remilly, Beaudricourt, Remelfingen, Forbach, and Kochern. The trains carried 1,110 officers and 40,855 men, 1,239 horses, 76 vehicles, and 266,000 kilogrammes (235 tons) of baggage. This is the very high average per train of 28 officers, 1,047 men, 32 horses, 2 vehicles, and 6 tons of baggage. During six hours on the next day 213 officers, 2,896 men, 2,400 horses, and 307 vehicles were entrained in 24 trains. This is an average per train of 9 officers, 120 men, 100 horses, and 13 vehicles.

Greece.—30,000 Reservists are to be mobilized for the manœuvres in the last days of September and the first days of October. The principal manœuvres take place at Eleusis, close to Athens.

Japan.—As is generally known, the regiments of divisional Cavalry of the Japanese Army have hitherto consisted of three squadrons, a fact which many competent observers have commented on, pointing out that in their view this made the divisional Cavalry unnecessarily strong, and at the expense, of course, of the Cavalry brigades. The Japanese General Staff have now decided on a change, and in future the regiments of divisional Cavalry will only consist of two squadrons. The squadrons which are thus set free are to be formed into two new brigades whose head-quarters will be at Morista and Tozohashi. The Japanese Cavalry—other than divisional Cavalry—will now consist of four brigades each of eight squadrons.

Roumania.—Hitherto the rear ranks of the Roşiosi regiments have carried the sword instead of the lance, they are now to be armed with the lance like the front rank. This is following the example of the Germans rather than the Austrians, who abandoned the lance altogether about 1887.

The manœuvres which were to have taken place near Craiova have been cancelled.

Russia.—A competition for officers of mounted troops was instituted last year at Krasnoe Selo, which is to be made an annual event at that camp.

This year the course was four miles long. A considerable number of artificial fences were introduced, such as posts and rails, banks with and without ditches. There were also natural ditches and other obstacles. For instance, at one place the ground had been prepared for military obstacles, where the many holes necessitated a slow pace. At another place there was an earthwork, called the 'Battery.' The rampart of this had to be climbed, and there was a deep and steep drop on the other side which had to be slithered down.

The competing teams were drawn from the mounted troops, and on this occasion 9 Cavalry, 2 Cossack regiments, and a Horse Artillery team entered. 90 per cent. of the officers available in the unit had to ride or else the team was disqualified.

The teams started at intervals of seven minutes. Each team was led by its senior officer, and every member had to finish the course. The time taken by the last man determined the time of the team.

The race was won by the Horse Guards, of whom the first man of the team did the course in 10 minutes 17 seconds, the last in 11 minutes 42 seconds.

RECENT PUBLICATIONS

ORGANISATION

'War Establishments,' 1908-9.—The principal alterations in Cavalry units have been given in the beginning of the Notes.

'Regulations of the Territorial Force.'—This includes the establishments, and should be in the hands of all Mounted Brigade officers.

'21st (Empress of India's) Lancers. Notes on Mobilization.'—This is an excellent little publication, giving particulars as to equipment, arms, &c., required on mobilization, the establishment of each squadron, and many other particulars—and finally the mobilization orders for the five days.

TRAINING

'The Sword and How to Use It.' By Lieut. Betts.

Lieutenant Betts is to be congratulated on having supplied a long felt want, namely, a treatise in the English language on sabre play.

Having studied under Magrini, who is perhaps the greatest exponent of this style of fencing, and the most capable instructor whom we have at the present day, the principles which the author lays down in his book are very similar to those taught by that master.

Much attention is drawn to the importance of leg work, as it is only by the correct balance of the body on the feet that rapidity of movement can be acquired, which is so essential to success in the assault.

The book contains numerous illustrations which are actual photographs of different positions when forming the parries, etc.

The author first shows by photographs the right and the wrong manner of grasping the sword; further on lessons are given in detail which may be exchanged between two fencers, one acting as master and the other as pupil. The book finishes with a copy of the rules and instructions for judges at present in force at the Royal Naval and Military Tournament, which should be useful to anyone going in for those competitions.—(C. F. V.)

HISTORICAL

'History of the Fifth Royal Irish Lancers.' By Major W. T. Wilcox, 3rd Hussars, late 5th Lancers. Arthur Doubleday & Co., London.

This is a most interesting book, ranging as it does from the Battle of the Boyne, when the regiment was known as Wynne's (Inniskilling) Dragoons, to Blenheim, Oudenarde, Malplaquet, and, lastly, to the South African Campaign, in which the regiment took so distinguished a part. To anyone who has been connected with the regiment the book is of course invaluable, but to the wider reading public it also appeals as a most interesting story and historical record, well written and most readable even to those who are not regular readers of military records. It contains many references to the doings of other regiments, both Cavalry and Infantry, who have served with the regiment in different wars, and this no doubt will add to the interest which it will have for those corps. There is an excellent account of the work of the regiment during the siege of Ladysmith and the whole of the South African Campaign, together with a description of their famous charge at Elandslaagte. There is a description also of the occasion at Suakin when they were fortunate enough to get 'home' against the enemy.

TRANSPORT

'The Indian Baggage Camel.' By Major Chesney Cook, 7th Hariana Lancers, Lahore. Printed by the *Civil and Military Gazette* Press, 1907.

This is an interesting little pamphlet, written evidently by a person well acquainted with the vagaries of that much-abused animal, the 'Oont.' As the writer points out, although the losses on service among the camel transport, especially in the Afghan War of 1878-80, have been enormous, these losses have been mainly due to preventable causes, such as ignorance in feeding and working, &c. The camel is undoubtedly, in comparison with the mule, a delicate animal, and requires special treatment in accordance with its habits, yet it is a most useful, and, in some countries, an invaluable transport animal.

The pamphlet is all too short, being only of fifteen pages. It is divided into six parts, containing most useful and instructive notes on points to bear in mind when choosing camels; treatment in the lines and on the march; hints on loading and entraining, &c.; description of camel saddlery, with notes on fitting the gear: some excellent prescriptions, and remarks on accidents and diseases; and, lastly, an account of the organisation of a Silladar Camel Corps, which is on similar lines to that successful, though to ordinary European ideas, extraordinary organisation, Silladar Cavalry.—(C. W. S.)

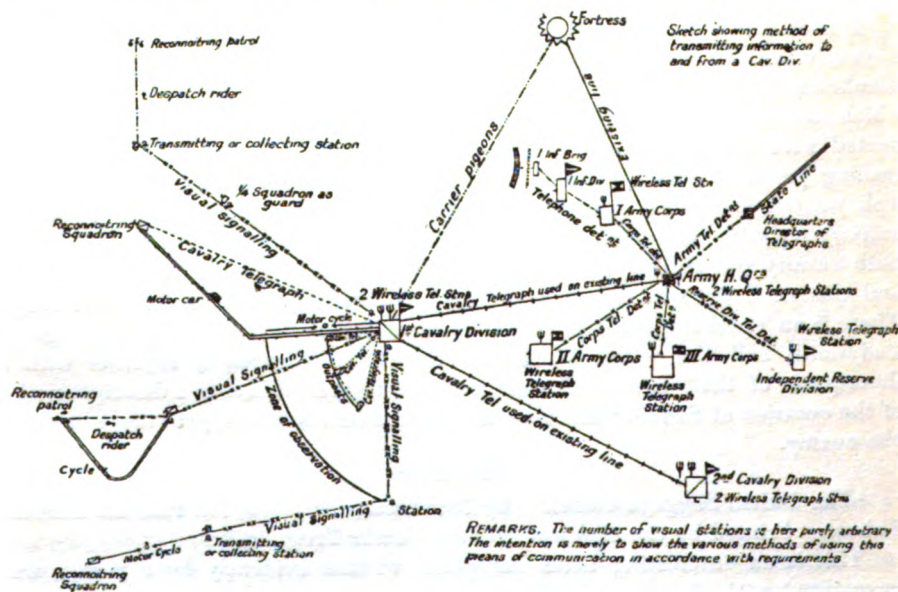
MISCELLANEOUS

'Defenders of Our Empire.' Edited by C. Gilbert-Wood. 2s. 6d. London: Hugh Rees, Ltd., 119 Pall Mall, S.W.

The first number of this quarterly publication appeared in August, and Mr. Gilbert-Wood has produced interesting little biographies of the dozen officers of both services whose names figure in this number. The 'get-up' of the book is all that could be desired; the printing is good and the illustrations are excellent. The biographies should interest not only soldiers and sailors, but even civilians.—(B. E. S.)

FOREIGN BOOKS

Transmission of Reports.—In view of the interesting article by Major D'A. Legard on 'Relay Posts,' on p. 497 of this number, we think that it may also be of interest to reproduce a portion of the diagram which is given in the sixth edition



of Von Kleist's book on 'Officers' Patrols,' now edited by Major G. v. Ruffer, showing the method of transmitting information to and from the Cavalry division. The number of visual stations shown in the diagram is purely arbitrary, the intention being merely to show the variety of methods of transmitting information of which use can be made.

The writer, in the course of a chapter on the transmission of information, states that theoretically there has been something of a revolution in the means, technical and otherwise, of sending back reports, but whether all these methods are practical only the experience of a war can teach. He considers, however, that when all is said and done, the despatch-rider will continue as heretofore to be the *ultima ratio*.

When he deals with the duties of reconnoitring squadrons, it is evident that his views coincide to a great extent with those held in this country. He adds that the reconnoitring squadron serves as a support to the patrol and may have to fight to allow of its retirement. The reconnoitring squadron has usually a certain piece of country told off to it, wherein it is to be found, and which is known to the patrol leader.

Equally as important as the close or wide meshes of the reconnaissance net which the leader spreads in the direction of the enemy is the necessity for retaining in his own hands the various lines of report.

The writer recommends that an officer when riding forward with a patrol, if he knows that he may have to send back a man with a report, should be guided by this eventuality in his choice of a route. He should constantly impress the aspects of the road, the presence of cross roads and villages, upon the man who may have to return along it. He should point out also how different the road will appear by night, and when the man is about to ride back the officer should write down for him the places he should ride through or avoid. The road he is to make for should be marked on a map. Speed is a secondary consideration compared to the certainty of delivery of the despatch.

‘Employment of Large Cavalry Masses against an Enemy’s Flanks and Rear.’ 1st Prize Essay, by Major Baron von Holzinger-Berstatt, 1st Prussian Guard-Uhlans. Republished from the *Kavalleristische Monatshefte*.

The five best essays are now republished in one volume, and are prefaced by some remarks by the referees. The opinion generally expressed by the referees in regard to the essays as a whole is that, while the authors, in the absence of any war experience of their own, have drawn their inspiration largely from the lessons of the past, some have failed altogether to grasp the special conditions which prevailed in those days, and have also not made sufficient allowance for the wholly changed conditions of to-day. Further, many of the competitors appear to wish that the Cavalry mass should hold itself from the very beginning of a battle ready for the action which it could only really control in the event of its own side being victorious. It is not without significance that nearly all the authors appear to recognise that, unless Cavalry is thoroughly trained to dismounted action, it is hopeless to expect them to effect much. No new ideas are put forward, but it may be of interest to give a summary of the views of the officer who is adjudged to have written one of the two best essays.

He begins by expressing a doubt whether, when the needs of the divisional Cavalry and of the protective Cavalry have been met, enough mounted men will be available for the suggested rôle of the ‘large Cavalry masses,’ which should not, he thinks, for any one single undertaking be of a less strength than 4,000–6,000 men, particularly as the commander-in-chief must be prepared for this Cavalry, after some great undertaking, being greatly reduced in numbers or even

exterminated for all practical purposes. He questions whether any Continental commander could afford to strip his forces in the field of masses of Cavalry unless it was very superior in this arm to its adversary.

The writer quotes numerous examples from past military history when the weight of Cavalry has been either permanently or temporarily on one side, and finally comes to the conclusion that large bodies of independent Cavalry *may*, upon occasion, be employed against the rear and flanks of an enemy. Opportunities for the effective employment of these masses will occur some time after a campaign has begun rather than at its very commencement. He considers that such undertakings will be easier in one's own rather than in a foreign country, since the long lines of communication of the invader would offer special opportunities for the effective employment of Cavalry masses. The Cavalry to be thus employed should, he contends, be organised differently to the remainder of that arm. Not only must the leader of such a mounted force be a man of very special character, but the force itself must be something quite out of the common, and must receive a considerably higher training than that ordinarily given to Cavalry.

The objective of such Cavalry masses will be the railways in rear of the opponent, and the great strength employed should enable the Cavalry to choose its point of attack, since every vulnerable place cannot be guarded by the enemy. The opportunity for the employment of large masses of mounted men will occur especially after a general action, when ammunition to replenish pouches and limbers is being pushed up by rail and road. The author further points out that it is only by the employment of such large independent bodies, striving to operate in the rear of the enemy, that a defeat can really be turned into a rout.

Such bodies must be thoroughly well trained in dismounted work, and must be accompanied by machine guns to make up for the comparatively few rifles they can bring into the field. Horse Artillery batteries must also accompany the force to assist when necessary the dismounted attack. The author admits that the supply of such a force presents great difficulties, and he suggests that nothing but highly concentrated forms of nourishment for man and horse should be carried in wagons of the lightest possible build drawn by draught horses of the highest class.

'Lettres d'un Vieux Cavalier.' By Général Donop. (Librairie Militaire Berger-Levrault & Cie. Paris.) This is the second series of articles by Général Donop. In the second article, in which he pleads very strongly against any reduction of the Cavalry arm, he gives the following table showing the strength of the Cavalry of France and Germany:—

The German Cavalry, all armed with the lance, consists of:—

14 regiments of Cuirassiers	. . . . .	70 squadrons
28 " " Dragoons	. . . . .	140 "
20 " " Hussars	. . . . .	100 "
26 " " Uhlans	. . . . .	130 "
4 " " Chasseurs	. . . . .	20 "
7 Cheveau-legers, of which one has only 4		
squadrons	. . . . .	34 "
Total	. . . . .	494 "

We learn from another source that by April 1, 1911, this number will be increased to 510 squadrons.

The French Cavalry consists of:—

89 regiments = 445 squadrons.

The writer says that the German Cavalry mobilize 5 squadrons per regiment, while the French only mobilize 4. Consequently 356 French squadrons only would be sent into the field. After making a further reduction in respect of the Algerian regiments, 316 squadrons only would be available.

Our own regular Cavalry mobilizes only 87 squadrons, of which only 45 squadrons are available in Great Britain. In face of these figures, we shall hope that no serious proposal can be put forward from any quarter urging a reduction in our Cavalry regiments.

Among the articles dealing especially with Cavalry in the Service Magazines may be mentioned the following:—

‘Journal of the R.U.S.I.’—*July*.—‘Studies in Applied Tactics. Cavalry in Battle on August 15 and 16, 1870.’ Translated by Major E. Makins, D.S.O.

A description of a charge by the 7th Cuirassiers and 16th Uhlans in line against the French Infantry and one of their batteries. The Prussian Cavalry, though they inflicted severe loss on the Infantry and Artillery, were disorganised by a gallop of 3,000 paces, and were cut in half by a French Cavalry brigade. They were subsequently charged in front and then in flank, and what was left of them fell back only to receive a devastating fire from the Infantry. On the other hand, two lines of Infantry and a mass of Artillery had been broken.

‘Distribution and Supply of Ammunition.’ By Colonel F. Wing, C.B., R.A. The text of his interesting lecture at the R.U.S.I. is given. He discusses on p. 912 the question of a Cavalry divisional ammunition column as a means of carrying the second reserve of the Cavalry instead of its being carried by the six Infantry divisional columns. He suggests that it might be made a unit of the Army troops, to be sent forward when necessary, either as a whole or by different groups, in different directions.

August.—‘Studies in Applied Tactics’ are again continued. A map, however, is necessary in order to follow closely the description of the engagement. An account is given of the attack of the 1st Dragoons of the Guard on the French Infantry, in which the Dragoons lost 16 officers, 122 men, and 246 horses, out of 20 officers, 406 men, and 426 horses. The writer tells us that the charge created a temporary panic, which ended in the complete cessation of the offensive of Cissey’s Division. It saved the remains of the 38th Brigade, and permitted a retreat of a battery of the 10th Corps, which was in a dangerous position to the north of the road. It also showed, which the writer thinks was most important of all, that the French were not masters of the battlefield, and for this reason its moral effect was undeniable.

‘R.A. Journal.’—*September*.—Notes on the Bazar Valley Expedition, 1908, by Brevet-Major C. De Sausmarez, D.S.O., R.A., is an interesting short account of this expedition principally from a gunner’s point of view.

‘R.E. Journal.’—*August*.—Major R. L. McClintock, D.S.O., R.E., in an article entitled ‘Some Experiments with Palm Trees as Bridging Material,’ gives particulars of two bridges which he constructed with palm trunks. One of these was a heavy trestle bridge, 15 feet high, for Infantry in fours, crowded on loaded

carts. Major McClintock tested this bridge, and the conclusion which he draws is that palm timber is amply good enough for ordinary span bridges. The second bridge was a central support suspension bridge, span 120 feet, for Cavalry in file or loaded bullocks. When a palm trunk is 'tested to destruction' under a cross breaking strain it buckles like a pipe, and does not split or snap like an ordinary spar.

The writer by his experiments has thus contradicted the very general impression that palm trunks are of little or no use for bridging purposes.

Those officers who are interested in field telegraphs should read Major E. G. Godfrey-Faussett's article, entitled 'Studies on the Use of Field Telegraphs in South Africa.' It is illustrated by some clear diagrams.

September.—This article is continued.

'Journal of the United Service Institution of India.'—*July.*—Major D. S. Buist, 29th Lancers, gives us a most interesting account of Hannibal and the battles of the Second Punic War under the title of 'The First Great Cavalry General.' The article is an appreciation of the great captain, and one which any Cavalry soldier will read with interest.

The writer contends that never has Cavalry played so prominent a part in any campaign, and never has it achieved greater results or inflicted such material losses on its foes. Major Buist attributes Hannibal's power over his men to the fact that he appealed to their passions, imaginations, and affections, and roused a martial spirit which no hardship, disaster, or misfortune could exorcise. The writer says elsewhere: 'The comparatively unchanging nature of strategic operations has been a theme with many military historians, and, if strategy has changed little, the fundamental principles of tactics have changed less.'

'United Service Magazine.'—*August.*—In an article on 'War in Enclosed Country,' the writer urges that an Infantry brigade when operating in an enclosed country should have attached to it 100 Mounted Infantry and 100 cyclists. The latter would, doubtless, be of the greatest assistance, but the former could ill be spared from the numbers of the protective Cavalry. He argues for the decentralisation in such country of the general reserve and also that Artillery should form part of Infantry brigades.

September.—Captain C. B. Norman has a long and interesting article on the Turkish Army. He gives the total number of Cavalry regiments, including 66 irregular, as about 125. A regiment consists of 5 squadrons; 2 regiments and a horse battery form a brigade, and 3 brigades a division. A translation by Miss Maguire of further extracts from General Carl von Clausewitz' writings is given, with notes by Dr. T. Miller Maguire, and is worth reading.

FOREIGN JOURNALS

Kavalleristische Monatshefte.—Among the articles in the June number there is one entitled 'Sins of Omission,' by Major General de Nadas. The writer contends that apart from those factors which come into play at the moment of Cavalry contact, there are many others which influence the effective employment of Cavalry to a much greater degree than is the case with the other arms, and that these factors are not sufficiently taken into account owing to their results not being readily apparent in peace operations. The factors which he mentions are: the faulty reports upon which the commander must often act, reports of strength,

formations, &c., which are found to be incorrect or belated, the condition of the horses; the writer queries whether the long peace has not led Cavalry to value too highly the possibilities of their arm.

The July and August numbers are combined. One of the articles by Major v. Ruffer should be read, although its inspiration is drawn from the events of nearly a hundred years ago; it treats of 'the personal element in war.' There is a short paper by Baron v. Maltzahn on 'The Qualifications of the Leader of a Reconnoitring Squadron,' which may be summarised as follows:—'*Er soll nicht nur ein guter Rittmeister, vielmehr zugleich Meister der Aufklärung sein.*'

Major-General von Zerlein writes of 'The Co-operation of Cavalry and Artillery.' In an article on 'The Chances for and against an Attack of Infantry,' the writer works out mathematically the percentage of hits per surface exposed, and comes to the conclusion that Cavalry attack will be impossible to withstand.

Revue de Cavalerie.—One can hardly take up any Cavalry journal in these days without finding a paper on Cavalry patrols: 'La Patrouille de Cavalerie sous toutes les Formes' commences in the June number of this Review and is continued in July. Henri Choppin has another instalment of his 'Souvenirs,' and in this number he has much to tell of General du Barait, who is chiefly remembered for all he did to restore the temporary obscured efficiency of the French Cavalry after the war of 1870. An interesting account of the horses of the French Army during the Revolution and Empire is continued, and it is curious to remark the small attention which was paid to shoeing or the provision made for it at that time. During the Russian campaign Macdonald appears to have been the only corps commander who thought of 'roughing' the horse shoes of the Cavalry.

In the July number there is a paper entitled 'Anarchy,' wherein the writer bitterly complains of the different interpretations given to the Cavalry drill regulations by commanders of all ranks serving in the various garrisons. An account, with a map, is given of the work of Akiyama's Cavalry Brigade in May 1904 during the campaign in Manchuria. The subject of Choppin's 'Souvenirs' this month is the Marquis de Galliffet, of whom an interesting study is presented; his life reads rather like a Gallicised version of that of one of Leon's heroes. 'Accord des Aides' is well worth reading. Veterinary-Surgeon Magnin, in an article on 'The Watering of the Horse,' urges the more frequent watering of horses in lines and stables.

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SPORTING NOTES

By the SPORTING EDITOR

RACING

At the Leopardstown July meeting the Royal Military Cup, a two-mile flat race, was won by the Hon. R. Bruce, 11th Hussars, riding his own horse Mon Prince, with Major D. Dixon's Joe (Mr. H. Sutton, 11th Hussars, in the saddle) second, and Capt. L. Pilkington's Rexhaven third. Mr. Bruce thus repeated his victory of a year ago, when he won on Charlie O'Ryan, and His Majesty the King presented him with the cup.

POLO

The Subalterns' Cup Tournament, open to teams quartered in London, or within a radius of forty miles, took place as usual this year at Ranelagh. Last season, when the 1st Life Guards won, seven teams competed, and this year there was a similar entry.

The final was between the 21st Lancers and the 7th Hussars. A splendid match resulted. At half time the Lancers led by 2 goals to none, but in the second half the Hussars equalised. With the scores level extra time had to be played, and after three minutes Mr. Godfree hit the winning goal for the Lancers, and thus they won by 5 goals to 4. Teams :

21st Lancers : Mr. D. W. Godfree, Mr. G. Gardner, Mr. G. N. Reynolds, and Mr. C. C. Lister (back). 7th Hussars : Mr. E. Kelly, Mr. E. P. Brassey, Mr. E. Hermon, and Mr. A. Watson (back).

The Princess of Wales and Princess Victoria honoured the match by their presence, and at its conclusion the Princess of Wales handed the Cup to the winning team.

Polo at home has suffered a great loss in the sad death of Mr. H. E. Lambe, the well-known Secretary of the Blackmore Vale Polo Club and President of the County Polo Association, who was killed from a fall of his pony whilst playing for his Club.

On the recent visit to England of that keen sportsman the King of Spain, at His Majesty's special desire a return polo match was arranged at Rugby between the 16th Lancers and Madrid. Earlier in the season the Madrid team had beaten the 16th Lancers. On this occasion His Majesty, as Colonel-in-Chief of the 16th Lancers, with Lieut.-Colonel Gough and Messrs. M. Graham and H. Howard, opposed his own countrymen represented by the Duke of Alba, the Marquis Viviana, the Duke of Penderanda, and the Marquis of Villavieja. Unfortunately rain fell the whole time, rendering the ground very bad; but King Alfonso entered vigorously into the contest and, playing well, enabled the 16th Lancers to ride off victorious by the narrow margin of a goal.

POLO ABROAD

The South African Imperial Polo Tournament for the Clements Cup, played at Bloemfontein, resulted in a win for the 4th Hussars, who defeated the 4th Dragoon Guards in the final by 5 goals to 4. The players for the winners were: Mr. A. V. Stokes, Mr. W. Neilson, Colonel R. Hoare, and Mr. A. D. Bell (back). Other teams entered were: 5th Dragoon Guards, 9th Lancers, and Standerton Mounted Infantry. His Excellency the Governor presented the Cup.

The same team of the 4th Hussars also travelled to Durban, and carried off the Polo tournament there, defeating the Kharkloof team in the final by 8 goals to 3.

The final of the Beresford Tournament, in India, took place at Simla between the King's Dragoon Guards and Patiala, the latter winning a hotly contested game by 3 goals to 2. Patiala players: Kunevar Sir Ranbir Singh, Sardars Baski Pretum Singh, Sewa Singh, and Chanda Singh.

The Viceroy entertained at dinner the competing teams, which included the 12th Lancers, 17th Lancers, Viceroy's Staff, Lord Kitchener's Staff, and The Hopefuls.

There was a magnificent game for the final of the Bangalore Tournament between the Mysore Gymkhana and the 14th Hussars. At the call of time the score was 3 goals all, and when the goals were widened and the game continued the Mysore team secured the winning point.

For the Mysore, Faiz Mahomed and Desaraj Urs were conspicuous, and for the Hussars, Lieut. Astley, Captains Tilney, and Major Stephens.

A successful Polo Pony Show, held in connection with the South African Inter-Regimental Tournament, took place at Bloemfontein, O.R.C., in the presence of a large number of spectators.

Since the advent of the 5th Dragoon Guards in this station the show has been an annual one. A great improvement over previous years was noticeable in the class of ponies shown, especially in the increase of English ponies and the diminution of Argentines; the biggest entries, however, being in the Australian class, which produced some excellent ponies.

The following are the prize winners:—

English—Heavy-weights: Mr. Hornby's (4th Dragoon Guards) Whisper; Light-weights: Mr. Hornby's (4th Dragoon Guards) Friskey. Australian—Heavy-weights: Mr. Wright's (4th Dragoon Guards) Kiltie; Light-weights: Captain Lamont's (4th Dragoon Guards) Brownie. Argentines—Mr. A. C. de Wiart's (4th Dragoon Guards) Jumbo. Country-bred South Africans—Captain Lamont's (4th Dragoon Guards) Kitty. Horse Jumping—Mr. William's (5th Dragoon Guards) Minnie. Pony Jumping—Captain Jackson's (9th Lancers) Sweet Charlotte. Bending Race—Colonel R. Hoare (4th Hussars). Best pony shown—Mr. Hornby's (4th Dragoon Guards) Whisper.

The Judges were Sir Hamilton Goold Adams, K.C.M.G., Brigadier-General R. Bannatine Allason, C.B., and Major K. P. Apthorp. Hon. Secretary, Captain G. C. S. Horne (5th Dragoon Guards).

FOOTBALL

CAVALRY FOOTBALL ASSOCIATION

Cavalry Cup Ties

FIRST ROUND

8th Hussars, Colchester, v. 5th Lancers, York.
 11th Hussars, Shorncliffe, v. 21st Lancers, Canterbury.
 7th Hussars, Aldershot, v. 2nd Dragoon Guards, Hounslow.
 2nd Life Guards, Windsor, v. 1st Life Guards, London.
 2nd Dragoons, Tidworth, v. R. H. Guards, London.
 16th Lancers, Aldershot, v. 3rd Dragoon Guards, Aldershot.
Byes.—18th Hussars, 19th Hussars, 20th Hussars, 4th Dragoon Guards.
 First round to be played by November 7, 1908.

SECOND ROUND

20th Hussars v. 18th Hussars.
 5th Lancers or 8th Hussars v. 19th Hussars.
 11th Hussars or 21st Lancers v. 4th Dragoon Guards.
 R. H. Guards or 2nd Dragoons v. 1st Life Guards or 2nd Life Guards.
 2nd Dragoon Guards or 7th Hussars v. 3rd Dragoon Guards or 16th Lancers.
 To be played by December 5, 1908. First named has choice of ground.

P. G. REYNOLDS, Major, 3rd Dragoon Guards,
 Hon. Secretary, C.F.A.

Captain B. H. Leatham, Adjutant 1st Yorkshire Regiment, has been appointed Polo Secretary of the Alexandra Sporting Club, Egypt.

GOLF

The Military Club's golf competition took place this summer on the Sunningdale Golf Links. In the first round the United Service Club beat the Junior United Service Club, and the Naval and Military Club beat the Army and Navy Club.

In the final the Naval and Military Club beat the United Service Club, and so retained the Cup.

BOXING

The 18th Hussars held a good meeting at the Curragh Camp, before a record attendance, at which the following are some of the results:—Private Moxam (18th Hussars) beat Private Butler (L. N. Lancers); Corporal Miles (3rd Dragoons) beat Sapper Lowes (R.E.); Corporal Brogden (18th Hussars) beat Sergeant Baseley (R.F.A.); Lieut. Leahy (R.A.M.C.) beat W. P. Hefferman (T.C. Dublin); Pony Moore (11th Hussars) beat Sergeant Young (Berks. Regt.); Private Daly (18th Hussars) beat Corporal Wilson (Essex Regt.); Trooper Cooke (Household Cavalry) beat Sergeant Brereton (R.I.C.); Harry Brown (9 st. coloured champion of England) beat Tim Healy (feather-weight champion of Australia) (ten rounds). Brown forced the fighting from the start, and knocked Healy out in the third round.

PROBLEM No. 7

REFERENCE 1" equals 1 mile, Map of Salisbury Plain.

The Mounted Brigade, of which Major Jones' regiment forms part, is quartered about Wilton for the protection from attack by guerillas of a portion of the line of communications running from Warminster to Bristol.

At 6 P.M. on September 10 the Colonel sends for Jones and gives him the following instructions :—

'The Brigadier hears there is plenty of forage, flour, and meat at Tilshead, and he wants it brought in.

'There may be trouble with a party of rebels whose head-quarters are in the Pewsey Vale, so take your whole squadron and the regimental machine-gun detachment and bring in all you can up to three days' supply for the Brigade on the farm wagons and other transport you may find at Tilshead.'

Jones finds at Tilshead plenty of oats and flour in sacks, 50 bullocks, and 100 sheep, and all along his route from Wilton he has seen hay in stacks.

He finds also 16 four-horsed farm wagons, 20 one-horsed farm carts, and 15 spring carts and farmers' dog-carts.

Give :—

(a) The orders Major Jones issues to his squadron on evening September 10.

(b) Supplementary verbal instructions, if any, which he gives to his officers before starting.

(c) The arrangements he makes on arrival at Tilshead.

(d) A copy of the receipt he gives for what he takes.

(e) The length, composition, and contents of the convoy with which he returns to Wilton.

(f) The order of march and arrangements for security on the return journey.

Problem No. VII.

Open to Subaltern Officers of the Mounted Branches of the Regular and Territorial Forces at home and abroad.

All Solutions (which should be as short as possible) must be attached to this page with name, rank and address of sender, must be countersigned by an officer, and must reach

THE EDITOR,

'Cavalry Journal,'

Royal United Service Institution,

Whitehall,

London, S.W.,

not later than February 15, 1909.

A Prize of a Night Marching Compass will be given to the officer whose solutions are considered the best.

The Editor's decision will be final.

From

Name

Rank *Regiment*

Address

Countersigned by

UNIVERSITY OF MINNESOTA
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3 1951 000 970 211 V

**WILSON
ANNEX
AISLE 70**

